WESTERN FARMER & GARDENER

"THE PROFIT OF THE EARTH IS FOR ALL; THE KING HIMSELF IS SERVED BY THE FIELD."—*Eccles* 5-9.

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TERMS: FIFTY CENTS A YEAR IN ADVANCE.

WESTERN FARMER & GARDENER.

JOHN D. DEFREES, *Printer and Publisher.*

Indianapolis, November, 1847.

NEW YORK, Oct. 23, 1847.

Sir:—In No. 8, for September, of the Farmer and Gardener, p. 124, is an article—"Experiments Among Farmers;' p. 126, another article—"Charcoal Beneficial" &c.; p. 128, others—"Plowing with Elephants;" "How to Preserve Tomatoes," and "How to Make Yeast," all taken from the American Agriculturist, without credit. I think such remissness is totally unpardonable, and I beg you in your next to give proper credit for these articles, as well as all others taken from the Agriculturist. My paper seems to be pretty general plunder for most of the agricultural publications of the day. Yours respectfully

Mr. JOHN D. DEFREES. N. B. ALLEN.

In reply to the above we would barely say, that no article has been taken from the "American Agriculturist" for the columns of the "Farmer and Gardener," without giving the proper credit. The pieces above mentioned were extracted from our other exchanges, and, bearing no credit, received none from us, of course. The one headed "Charcoal Beneficial" &c., was taken from the "Massachusetts Plowman," September 18th—the only paper among the number we can now lay our hands upon. If the Agriculturist "seems to be pretty general plunder for most of the agricultural publications of the day," it is an appreciation of its value highly creditable to its enterprising publisher, however much the conduct complained of may be at variance with the established usages of the fraternity. By the by—did the "Agriculturist" know that it was guilty of like conduct in republishing an article entitled "The Farmer's Creed," from the pen of the former Editor of the Farmer and Gardener? We suppose, the omission was the fault of others, for which we do not hold Mr. Allen responsible,—precisely as it was with us in the case above referred to.

COMMUNICATIONS.

CRANBERRY SAUCE.

Some time ago, I met with some directions, (copied, I think, from the Michigan Farmer, into many papers,) for saving sugar in the preparation of cranberry sauce; and I hoped some one would point out the absurdity of the process recommended. As I have not discovered that such correction has been made by another, the reader may take what follows:

The writer appears to be aware that saleratus will neutralize an acid, and as the amount of sugar added to the cranberries to moderate their sourness is necessary great, according to the old method of preserving them, he avoids this waste of sugar, by first adding to the berries a quantity of saleratus, to get rid of a portion of the acid. It is a wonder the inventor did not think of getting rid of *all* the acid by continuing the addition of saleratus. By this means he would have saved *all* his sugar. But as the excellence of the preparation *consists in its acidity* properly qualified by sugar, I would not vouch for the merits of his sauce. Indeed it would be worthless; and just in proportion as we destroy the acidity by alkalies, we *waste cranberries*. We might just as well throw away whatever quantity we thus neutralize. Indeed better throw it away, for then what acid there was, would be pure; but by the addition of an alkali, we not only waste the berries, but produce in the sauce a flavor about equal to that of a solution of epsom salts.

Such are the inevitable results according to the laws of chemistry; and if any one has tried the prescription of the Michigan Farmer, I think he will testify to the truth of them. J. T. P.

BUDDING---TWO WRITERS.

While curiously sketching over the August and September numbers of the Farmer and Gardener, my attention was arrested by two articles on the subject of propagating fruit trees by inoculation. The one contained in the August number appears to have been penned by a gentleman (J. H. Robinson) of Eberle, Ia.; and the one in the September No. by a gentleman (signed "Lenox") of Lafayette, Ia. The very great dissimilarity of opinion existing between the two writers, according to the sentiments of their respective articles, caused the matter to receive more attention than, perhaps, it would have done if they had more nearly coincided in their views and experience.

The former gentleman, it would seem, as practiced the method called "American shield-budding," with such unsuccess, as to provoke him to the use of language of a personal character, and of a rather harsh nature, towards Mr. Downing its author, and who recommended it as the best mode of inoculation. He (the writer) says, that after some years experience in the old method of taking out the wood before inserting the buds, that one-twentieth was a deplorable loss; whereas, when leaving the wood in, one-seventh would scarce cover his loss. The latter gentleman, too, appears to have used the old plan of taking the wood out of the buds, before inserting them, with abundant success; but the scarcity of buds (of some varieties) actuated him to employ the method of letting the wood remain in them at the time of insertion, and with almost, or quite, unparalleled success. Indeed, the annals of horticultural history do not afford an instance of a happier termination of any affair. He says, that out of almost eleven hundred, he lost only ten, and that a share of them had been put in by a boy who had but very slight acquaintance with the art of inoculation; and to make the matter still more striking and important, his buds had, from some cause, become considerable dried up previous to their insertion.

Now, it is somewhat difficult for me to perceive the reason why the views and experience of two horticulturists should be so unlike each other—while both are under the influence of one, and the same climate. I have but *little*, in fact, I may say no experience in the business of propagating fruit trees, either by inoculation or otherwise; but, I feel an abiding interest for the promotion and general welfare of horticultural and all other useful sciences. Therefore I sincerely hope to see an era dawn upon the art of cultivating choice fruit trees, which may enable men to lay down their views and practical knowledge parallel with each other, and parallel with the most expeditious plans. If theoretical,

practical, and experimental horticulturists will take a long pull, a strong pull, and a pull *all together*, they will, no doubt, succeed in elevating their science. AJAX.

Putnam County, Ia., Nov., '47.

In Nicholson's "Farmers' Assistant," published in 1818, the following method of *grafting* is described, which it may be well enough to republish. I succeeded with a scion of a pear on an apple tree, as late as the 16th June; and I have no doubt, that for large trees it would be preferable to the ordinary method. I. S.

Greene Co., Ia., Oct. 18, 1847.

"GRAFTING IN THE RIND,

Is performed by cutting off the stock square; slitting down the bark a small distance, and raising it up, so that the end of the scion may be inserted between it and the wood. The scion is made with a shoulder, cut in about half its thickness, and the other half is sloped off gradually, so as to give it the form of a wedge; ; the cut side being flat and the bark side untouched. This wedge, or tongue, is inserted under the bark, with the shoulder fitted to the stock; the bark is then pressed close and bound round, and the plaster is applied," as in other cases. "It is usual in this case to insert three, or four scions."

Mr. Editor: — Feeling an interest in the subject of agriculture, I wrote the following communication for the "Western Farmer and Gardener." If you think it worthy an insertion, it is at your service.

Respectfully, yours, J.

THE FARMER.

STILESVILLE INDIANA, Nov. 21st.

Mr. Editor: — The science of Agriculture is progressing slowly in our vicinity — we farm but we do not farm scientifically. Suppose, for instance, a farmer wishes to know, whether it is best to sow wheat early, or late; by the common mode of farming, he never can determine. Perhaps one will tell him that he sowed 10 or 12 akers of wheat between the 1st and 20th of September, and raised about 150 bushels. Such a vague account as this will never demonstrate anything; the above might be demonstrable almost to a certainty, by choosing two pieces of ground of like soils. Sow the one early and the other late, and sow the same quantity and quality of wheat per aker, on each piece of ground, then weighing accurately the products of each.

It seems to be the prevailing opinion, that a man requires fewer qualifications for farming, than for any other business. Now a glance at the subject should teach a person differently from this. There is a greater variety of operations comprised in the business of farming, than almost any other. If a person wishes to learn a trade, he works at it 3 or 4 years, before he considers himself competent to set up shop. It should be even more so with agriculture—he should read and study the subject; he should take one or two agricultural papers; and if he takes a half dozen of them, he will be the gainer.

The farmer is the most independent man we have. *He* need not catch the "golden smile of dame fortune" to be independent. In the language of Burns,

> "To catch dame fortune's golden smile,
> Assiduous wait upon her,
> And gather gear by every wile
> That's justified by honor.
> Not for to hide it in a hedge—
> Not for a train-attendant;
> But for the glorious privilege
> Of being independent."

The man who has 80 akers of land and is out of debt, is truly independent. The world may frown, but in spite of all, he has in his hands the means of an ample subsistence. Farmers in this country where land is no object, generally scatter their labor over too much ground: For instance, if the time that is spent in the partial cultivation of ten akers, making it raise thirty bushels of corn per aker, was spent in the thorough cultivation of five akers, it would raise at least sixty bushels per aker. Now any person knows, that the latter would be more, for the soil would be improved, and the corn easier gathered, besides the use of the other five akers in something else. "A little farm well tilled" is worth more than a large farm half tilled; or in other words, a small farm tilled, neatly, scientifically, and economically, is more profitable than a large farm slovened over, and half cultivated.

Indiana will yet be the State for agriculture. The day is not far distant when rail-roads and canals will traverse its surface, as thick as lines on a checkerboard. The farmer will then have a market at his door for all his productions. Farming compared with other arts, is like the fable of the belly and its members, when the members refused to feed the stomach, they all suffered. Just so when crops are short, the whole community suffers; agriculture must flourish, and then other arts can flourish in proportion. Agriculture is indeed the "art of arts; without it man would be a savage, and the world a wilderness."

Yours, &c. J.

INOCULATION OF FRUIT TREES.

In the August number of the Farmer and Gardener, I saw a piece written by J. H. Robinson, on the subject of budding; after giving it a careful perusal, and contemplating the subject awhile, I was disposed to agree with him; I also thought he had done nothing but his duty, by giving his experience to the public. I have been engaged in the cultivation of fruit trees some six or eight years, during which time I have practiced various modes of budding, and, from experience can say, I have invariably been the most successful when I took the wood out of buds before using them. Mr. R. strongly advises those who practice Downing's method to do it early, when the buds are young and tender. This I *must* consider good advice, for after inoculating some six or eight thousand apple trees the past season, my loss was greater than *one-seventh*. I have not, however, made an estimate to ascertain the exact proportion, but I think (of some varieties) the loss will be near *one-fourth*.

This is one reason why I was disposed to coincide with Mr. R., for in those varieties, where I discovered the greatest number of failures, the wood was the ripest, and firmest, at the time I used the buds. I also found that some of the buds failed, in consequence of some small brownish red worms, about one-eighth of an inch in length, having eaten their way under them. I never saw a case of this kind among my buds, when the wood had been taken out previous to using them, and I think it is rarely, if ever, that such is the case. It is true, my experience has been chiefly confined to the old method of taking the wood out of buds before their insertion, because, I thought it the preferable way, and in no instance was my loss anything, compared with that of the present year. Indeed, I believe by taking a little pains to select the best buds, the operator may have *all* to grow. Some cultivators, however, boast of having practiced the *wood system*, with almost infinite success. One writer I notice, says, out of almost *eleven hundred*, he only lost *ten*." This, probably, might have been the case, but for the benefit of those who may hereafter engage in the nursery business, I would say, beware of *counterfeiters!!*

October 28th, 1847. R * * *.

THE KIDNEY VS. THE FIELD BEAN. — Recent experiments have served to demonstrate the fact that, on strong soils, the kidney bean is equally wholesome, and much more prolific than the field bean. Of legumin, albumen, &c., it contains 23.6 per cent., while the latter contains only 11.7; consequently, they are much more nutritious, and require a far less quantity of meat to give body and flavor to them. We have ever considered the kidney bean a profitable, and, with a good soil and proper cultivation, a remarkably *sure* crop.

Maine Farmer.

THE BLIGHT IN FRUIT TREES we observe is usually prevalent this season in many parts of this State; and by the last number of the Genesee Farmer, we learn that the same is true of Western New York. Friend Barry thinks that it is the work of an insect. We have doubts on that point.

Ohio Cult.

SELECTIONS.

GEN. TALLMADGE'S ADDRESS

AT THE CLOSE OF THE TWENTIETH ANNUAL FAIR OF THE AMERICAN INSTITUTE.

Reported for the Tribune.

At Castle Garden, on Saturday evening last, Gen. JAMES TALLMADGE delivered the final remarks at the close of the Great Fair, the 20th exhibition of the kind held by the American Institute.

The speaker was introduced to the audience by Gen. Chandler—and then proceeded, extemporaneously, as follows:

Fellow-Citizens: I meet you with great delight on the present occasion—the close of the Twentieth Annual Fair of the American Institute. I am delighted to inform you that this anniversary has been attended by more people than have ever, on any former occasion, visited the Institute. And, moreover, the Judges announce a great improvement in Manufactures and the Mechanic Arts. There is the Horticultural Department—with, among other things, 20,000 Dahlias deserving attention, illustrating in a beautiful manner the character and utility of the delightful study of Botany. At and before the Christian Era, the Romans could only exhibit 500 varieties of trees and flowers in their botanical list. In the 79th year of our Lord, the whole catalogue was 1,000—the product of the whole known world. In the 16th century, the catalogue stood at 22,000: showing a vast increase. Now look abroad and see the advance of intelligence—the same department of industry so swelled that the catalogues of the present day contain the names of 100,000 varieties.

All these illustrate the necessity for Agricultural Schools to extend the education of Botany and Agriculture, with Chemistry, in this department of science. I would ask on this occasion for public aid to establish such a school near this city. It is but justice to advance our intelligent farmers in *their* department as far as *other* departments have been advanced. Out of every hundred people, at least 85 get their living from agriculture, and they pay most of the taxes and bear the public burdens—and they are worthy to have a school of this kind to teach them their department, and the sciences properly connected with it. We need something, for two long have we been obliged to look abroad for the necessary life-sustaining products—and this night I deny the necessity of doing so any longer: we have here, all around us, evidence that our country is competent, and that we possess the abundant ability to supply our own wants. This room affords ample demonstration.

Look at the article of *Iron*. Twenty years ago, it was costly and difficult of manufacture. Five thousand dollars then have swelled to five millions *now*, and the cost is greatly reduced. We feel that our country is able to produce enough, and yet, while American mechanics need employment, we are looking abroad for the manufactures that should come from our own people!

In *Cutlery*, England has yielded the endeavor to supply us, and she now comes here to obtain our patterns and learn from us the perfection of her work. There is the *Steam-Engine*, too; England acknowledges our supremacy, and Russia knows where she gets the best, and sends to America for her steam engines and instructions to make her railroads. (Here is, on exhibition, a revolving steam engine, deemed a great improvement.) England knows where she can be best supplied, and comes here for samples of her railroad *cars*. As to bar iron, we have here (pointing to a model) a machine that draws it out ready for use—twisting several bars together, and manufacturing it in a manner which prevents the possibility of those breakages and errors occurring which were formerly much too frequent in railroad iron.

Ship-building has been often exhibited, with all the variety of exquisite skill. Having attained the vantage ground, the repetition of exhibition is omitted. This night, however, a few specimens are on exhibition—illustrating, from the lifeboat of Francis to the ship-of-war, the power of our country, to equal any other in the scientific and masterly construction of vessels,—and the history of our country has heretofore recorded the story that our naval men, in peace or in war, know how to use them when the interest or the honor of their country shall call them into service. The names of a HULL, a DECATUR and a PERRY and their brave companions, stand recorded in history as national wealth—and while, on the land, a TAILOR, a WOOL, and their brave band—and a SCOTT, a WORTH, with their brave companions, march under the banner of their country, we may not doubt that the rights and the honor of their nation will be defended.

Here (unsheathing the elegantly gold-mounted sword manufactured by Ball, Thompkins & Black of this city,) is an exquisite specimen of American industry, given by the city of Troy, at a cost of $1,250, to the gallant Gen. Wool, as a token of the admiration entertained by the place of his birth for his valor. Although peace is our motto—agriculture our object, honor connects with other arts and other sciences, and becomes national property, to sustain and aid the rights of our country; and here, in this sword, is the illustration of the ability to do it. Our manufacturers can now make the instruments, and Buena Vista as well as Churubusco tell that our boys know how to use them. It is now fixed beyond controversy that in nothing are Americans more perfect than in the material of valor—and by our late wars, the discovery has been made to Europe.

Here are several most exquisite specimens of Silk, one of which was manufactured by an American lady—Mrs. Pierce of Vermont, that coldest region of all our country. The piece contains sixty-two yards of white American silk, made by cocoons raised by her, and woven *in a hand-loom!*

Such is the ability of our country, which ought to be cherished till its production supplies our demand.

Go to yonder table, and you find elegant *Cloths*, abundant specimens of which are here, and they evidence our ability to manufacture the best broadcloths and to grow the wool to do it.

In *Cotton*, our manufactures already supply demand with abundant exportation, and our materials of this nature are of such superior quality that England counterfeits our labels to find a market for her own second-rate productions.

We are fully able to compete, it is then evident, with any nation on the habitable globe, and when occasion calls we can not only hold fairs for domestic competition, but *now* compete with Europe itself in the production of that class of articles which have heretofore been cherished by our Government.

In regard to *Linen, it has never been protected.* During the war of 1812, seven different factories commenced its manufacture, each of which was supplanted and ruined upon the foreign importation that followed the peace. It is not now manufactured in our country.—England gave a bounty on its export, and in 1816 the duty here was 15 per cent., while the duty on coarse cottons stood at about 83 per cent.—Flax is congenial to our soil—the farmers do not raise it for want of a market. When raised, its fibre is shipped to Europe. Why shall we not give the boon of this article to Agriculture for the raw materials, and to the manufacturers for our own domestic supply? Two years past I have offered a premium of a gold medal for a piece of American linen. No competition has yet appeared, and the medal is this night left on hand without a claimant.

Turn for a moment to the *Horticultural Department.*—Yonder are its varied and beautiful specimens before you. A lady of Brooklyn contributes twenty such bouquets as this [exhibiting a most beautiful one] as a token of our advance in that department, and of her high approbation of the Institute.

Here also are specimens of Agriculture, with its varied productions, comprising the most exquisite vegetables, all of mammoth size. For instance, there is a Cheese of 600 lbs. weight and ten feet circumference, and of a quality which prevents the farther importation of English cheese.

Allow me to refer to the *new mode of making Iron*, by which we gain another advantage over the old system of things. Instead of the open forge, and the fabrication of the metal first into pigs and then into blooms, we have now on exhibition an improved Furnace, which runs the whole, at once, into bloom-iron, and saves at least half the original

cost. Why, then, when we can supply our own wants at home, look abroad for that supply?

Steam has long been known as a matter of science—but it was the American FULTON who first adapted it to public use and has worked a revolution in the commerce and navigation of the world. It was our FRANKLIN who called down lightning from the heavens. It was a MORSE who reduced it to the industrial pursuits, and especially allotted it to the task of instantaneously heralding the news of the day to the remotest parts of our country. In this state of the advancing mechanic prosperity of our country, may we not cast a look at the scenes around us? England stands the centre of commercial wealth and of the commercial world — and this she owes to her just system of taking care of the Labor of her country. She has pushed her industry, in the shape of manufactures, into every country in the world, either savage or civilized. She has thus secured employment, wealth and prosperity to all the departments and divisions of her subjects. She has a balance of trade from her commerce due her, annually, against almost every nation of the world, and for which she can draw a bill of exchange at premium upon any one of them, and upon every one of them profit. These balances of her trade are represented, in the public prints, to amount to about 300,000,000 of dollars per annum. The premium on bills of exchange to bring home these balances—other than the profits on her shipments, is equal to the whole amount of the expenses of the American Government. This illustrates strongly the effect of, and the distinction in, the condition between a creditor and a debtor country. To keep things in this condition for the last thirty years, England has practiced encouragement and protection to the labors and productions of her own country, while she loudly proclaimed and preached Free Trade to the surrounding nations, which she kept thereby in the condition of the debtor country. Free trade never has, it never can, exist under any state of society; it is an *ignis fatuus* to delude and ruin. What would the honest farmers of our land say to the man that should propose free pasturage over their fertile fields? Would they not arrest and care for him as a being incapable of self-preservation? Can the laws of society be overthrown and our citizens attempt to live in common? It is madness to discuss such themes. — Equality in trade and equality in rights is the motto for the American people. "Resistance to taxation without the right of representation" was the principle and the cause of the American Revolution. We surrender it all if, with all our agricultural and commercial enterprise, we servilely submit perpetually to stand as the debtor country, enduring the sacrifices of the transmission, at our expense, of the balances of trade to another country. Allow me to ask, How much will it now cost a farmer of Ohio or any other State, to pay a £1,000 bond due from him to a creditor in London? As England has hitherto refused to take American breadstuffs, his only mode of payment must be by the transmission of specie or by the purchase of a bill of exchange. The price of specie and the premium on bills bear a usual proportion to each other. To ship specie requires a premium on its purchase, expense of shipment, insurance, agencies, commissions, interest on the time of transmission, and therefore it is apparent that he must make large additions to the £1,000 collected in or ler to pay the £1,000, subject to all the deductions, at London. If he buys a bill to make a transmission, beside its being subject to the hazard of bankruptcies, the now market price is 9½ per cent. premium at 60 days, and if *at eight*, beside the hazard of non-payment in these days of insolvency, it is 10½ per cent.

It must be bad legislation to have allowed, for so many years past, this relation of a debtor country to have borne down our commerce and national industry. Till equality in our intercourse shall be established—when mutually trading, taking and receiving each other's staple productions, our independence as a nation is not yet complete. The debt due being always to be paid in the country of the creditor, the balance of trade for the last thirty years, with very temporary exceptions, has been against this country. The recently opened ports of England receiving our breadstuffs has not come either the legislation or the diplomacy of that country, nor from that of our own: but it has come to us as the boon of famine. What diplomacy could not accomplish, nor legislation coerce, the potato rot has provided, and has, for the time, repealed the corn-laws of England and opened to us, for the first time in the history of our country, an equal trade. In one short year the balance of trade has been equal or in our favor. The result has been, in this one short year, unequalled prosperity to all departments of our people.

Another famine would shake Great Britain to her centre. It must be remembered that her national debt is stated to be 800 millions of pounds sterling, equal to 4,800 millions of dollars—a sum beyond all hope of payment till the besom of destruction shall wipe away the account. It is the exhibition of the most stupendous fabric of the credit system that the world has ever witnessed. *Our* country has suffered under its influence beyond the power of much further endurance. When a foreign country shall offer to trade with us and ask us to take the productions and labor of her people, in the shape of her manufactures, we may well give our assent when she in turn, will receive in payment the labor and agricultural production of our country. While England *refuses* to take our products in payment, self-preservation requires that we should not admit her manufactures free. The motto of America is "Equal Rights and Privileges"—and if there is free trade, it must be free trade for both sides, and not for one only. Let us have equal privileges, but not consider our ports thrown open to foreigners and *theirs shut* against the agricultural products of our agricultural country.

The plain substance of the whole matter, then is, that if we take the manufactures of a foreign country they must take our produce. I do not believe in that one-sided equality where one side is *always down*. We do not allow the scales of Justice so to hang, nor the rights of individuals so to be weighed.—Let us, I repeat, have free trade, if at all, on both sides. Equality is the motto of the country, and should be enforced.

We have a great advantage in *the singular adaptation of our genius to the wants of the community*. Some time ago we found that military accoutroments were becoming too expensive, and on expressing a desire for some contrivance which should furnish gun-stocks more cheaply, a Mr. BLANCHARD appeared, conned the matter and forthwith produced a turning-lathe that now turns a perfect gun-stock, with all its protuberances and inequalities, from a solid piece of wood, and reduces the price of military arms one-half.—Again, when we wanted lasting portraits of our great statesmen, and other eminent men, Mr. Blanchard appears, saying: "Gentlemen, give me a plaster cast, and from that pattern *my machine* shall turn you a marble bust of any one you may wish:" and yonder they are: a CLAY and a DANIEL —not Daniel the Prophet, but DANIEL WEBSTER, the Statesman of our country.

Here we have an article of *Glass* showing the skill of our Brooklyn neighbors on this subject. It is the most perfect thing of the kind ever made by us, and contrasts strikingly with the imported material of the same description, from Europe. *That* came to us often yellow and dingy — *this* sparkles like the diamond. It is manufactured from the superior quartz or fine flint-sand found in Vermont and also in portions of Massachusetts and Pennsylvania.—Until recently we have had competitors in glass from Pittsburgh, Albany, Boston and other places still more remote. This sample from the Brooklyn works is worthy of all praise and competition—though, the vantage ground being gained and importations being stopped by reason of our most excellent productions, competition for premiums here is not continued. Window glass and all other productions in that fabric are in like condition. Domestic production supplies domestic demand.

[The speaker here referred to the article of *Rock Salt*, concerning the positive existence of which in our country much discussion has been recently held, without decisive steps being taken to ascertain the accurate statements. The question appeared settled to the mind of the speaker by the exhibition of a specimen of about forty pounds from the region of the Rocky Mountains. There were various statistics given and thoughts thrown out on the production and use of the substance.—*Reporter.*]

It is due to the Institute to say that there has been a steady progress in the mechanic arts. There are now exhibited 3 or 400 inventions or adaptations, either entirely new, or

useful additions to others.

Here [indicating the direction] see the improvement in *Agricultural Implements:* this Fork you could tie up, put in the docket, treat all manner of ways, and it — as you see — springs back to its right position instantly on being released. We also point you to the Plows and other tools, too numerous to admit of detail.

This *bust* of TAYLOR is the production of a lad of 17, who drew the ideas of the countenance simply from a profile portrait. That boy we are proud of; he is an example of the spirit pervading our country, and even this, his first production, would do honor to an artist of years and experience, and illustrates the utility of the development, by these fairs, of American genius.

Look at that *Carriage Harness* (from Philadelphia) on my right. Look at it attentively, and continue the examination until you are satisfied that Europe cannot surpass it.

While England is contending for wealth in the field of commercial enterprise, what is America doing? She is *exporting Ice;* the East and the West Indies, with the southern portion of our own land, claim a share of this pure product of Nature. Many cities of Europe and some in Asia are filled with carts labelled "American Ice." The *income*, the present year resulting from the trade in ice alone is more than the whole Wine trade of Bordeux — and, considering the article without capital and the tonnage of vessels employed for its shipment, it opens to our country a better and more profitable trade than the whole wine trade of *Europe.*

There is one more subject which, perhaps, in justice to the American Institute, should be noticed. It is this: An inquiry has been started by private individuals and even by portions of the press, on seeing the unbounded success of our fairs — What is done with all the *money?* and this is couched in the form of an insinuation. A short statement of the matter is due to the institute.—Whenever it has been my lot to preside over any institution — as I have over this from nearly its commencement until within a short period— it has been the invariable rule of my life to examine, pencil in hand, the monetary and financial condition of that institution, and to look into the statements of it general condition from time to time. This course I pursued while President of the American Institute, and I must say that at no period since its commencement has there been any defalcation or fraud, and at no time an absent dollar. So far have these fairs augmented our funds for the good of the Farmer that—I candidly say to you—the Institute has now at interest about $7,000, every cent of which awaits but the order the institute; and this they are not at all backward in giving when *any good* is to be accomplished by it. The object is to sustain with it the current and necessary expenses of the Institution—and, whenever the wisdom of the State shall come in aid, perhaps to establish an Agricultural School.

It may be asked: Who, all this while, has been the Superintending Agent, under whose auspices, aided by the Board of Managers, these financial wonders have been performed, and to whose cautious foresight so much is owing? It is THADDEUS B. WAKEMAN — who has extended his care over it from the beginning till now.

As an example of the manner in which the "money" of the Institute goes, you all know that the receipts of this day and evening are set apart for the benefit and relief of the child injured by one of the agricultural machines on the bridge. The amount, it is hoped and believed, will be about the sum of $1,000. The accident was not the fault of the Institute, but the result of the indiscretion of the child; and here I am directed distinctly to announce that, if parents will hereafter send children here too small to take care of themselves, although the officers of the Institute will *endeavor* to guard them, yet competent persons must be sent with them, and that the Institute cannot hereafter appropriate its funds for the relief of such cases.

[The speaker made a passing allusion to the Pyrotechnic display of the evening in competition for premiums, and noticed particularly the Macedonian's band, who, at intervals during the past day or two, had discoursed most excellent music—thanking them in handsome terms for their polite endeavors to enliven still farther the already cheerful and pleasant appearance of the exhibition.]

I will not farther detain you—hoping that you can agreeably occupy the remainder of the time in viewing the many elegant and useful articles around, which time forbids me to remark upon. Greatly obliged by your kind attention to these few and desultory romarks, I bid you all farewell, at this, the close of the Twentieth Fair of the American Institute of your city.

Mr. Tallmadge here took his seat, having spoken (altogether extemporaneously) nearly an hour in a strain of animation, terseness and great force of argument. Our reporter has endeavored to catch the leading ideas of the several topics, and we shall regret if any deviations from the original language have in any degree marred the sense or the perspicuity of the able remarks of the speaker. He was heard throughout by a remarkably attentive and enthusiastic audience.

From the American Farmer.

WORK FOR NOVEMBER.

As this month is one which, in the natural course of the seasons, the farmer has a right to expect severe frosts, if not snow, it should be the duty of each and all to so put forth their strength as to be able to husband everything the product of the farm which is liable to be injured by exposure to the weather. To toil as agriculturists do through the year to make a crop, it would seem to be sinful in the extreme, after having through the kindness of Providence succeeded in our efforts, to let it by neglect become impaired in value. There is no class in society whose business requires a strict adherence to system more than that of the agricultural; a few day's delay in doing a thing will often operate as a bar to full success throughout an entire season, and hence the applicability of that apothegm, which is so cherished by systematic farmers — do everything at the right time — and we will add, do it well.

Accumulation of Manure.—As *manure* is the goldmine of agriculturists, and as this is the season when the materials for forming it may be gathered to the best advantage, we shall commence our hints of the work to be done, by recommending that all should lay themselves out to collect and deposit in their cow-yards every description of substance within their reach, which by decomposition is capable of being converted into manure, as leaves and mould from the woods, pine shatters, marsh mud, weeds of every kind, scrapings from the lanes and roads, chips from the wood cuttings, and all kindred bodies, as all these by being spread in basin-like form over the surface of the cow-yard, so as to prevent the escape of the liquid voidings, will not only become valuable manures by the process of decay, but act as absorbents and retainers of the nitrogenous or volatile portions of such substances while undergoing those processes which convert ligneous substances into the food of plants. It would be better to have the compost heaps under cover, as that would prevent the deterioration consequent upon exposure to the rains and snows, but as that is more than we have a right to expect in the present state of agricultural improvement, we will content ourself with respectfully requesting that the materials we have named should be collected and deposited as we have pointed out, and that the yards thus provided, be occasionally sprinkled over with ground plaster, to aid the other materials in the office of fixing and preventing the escape of the ammonia from the decaying bodies as it may be formed.

By attention to the duty we have here pointed out, there is no farm which may not be made to furnish a full supply of manure for all the crops usually put in in the spring, as corn and roots generally, for of a truth it may be said that any substance which will rot is capable of being converted, by the means we have indicated, into good manure, and this will not be considered an exaggerated opinion when we state the fact, that each head of stock voids urine enough almost daily to nourish by its ammonia a bushel of grain, hence the imperious necessity which here addresses itself to the mind of the economical farmer to avail himself of all practicable means to preserve it from loss by evaporation or by being washed away. We do not pretend to say that, by adopting our plan the *whole* of the ammonia may be saved, but we do affirm that so much may be as will render the manure in the yard in the spring fifty per cent. better than

it would be if the old slovenly habit of managing the cow-yard, of permitting each succeeding rain to wash away its enriching salts, should be continued.

Corn Stalks.—As we are aware that the hay crop throughout a very considerable extent of our country has been a short one, we are apprehensive that the provender of stock will be limited, and, therefore, recommend that so soon as the corn may be safely gathered, that it be so, and the cornstalks be cut down and stacked secure from the weather and kept in reserve to feed the cattle with. We do not pretend to affirm that they will make as nutritive food as clover or timothy hay, but we feel prepared to advance the opinion, that, if cut in inch pieces and steamed, they will make a very good substitute for either, and will be found fully equal to straw in every quality calculated to sustain the animal system. They should be however gathered and protected as soon as possible, in order that their virtues may not be leached out of them by the winds and rains.

Corn Husks and Corn Cobs. — As the economy of cattle feed comes commended to us, we will here take time by the forelock to say that all of these should be carefully preserved to be fed to the cows and oxen. The first we know are cared for with that view, but the latter too often find their way to the fire of negro quarters. This is a practice which should be abandoned, as the corncob contains no inconsiderable quantity of nutritive matter, besides possessing very decided traces of phosphoric acid, a substance very important alike in the maintenance of integrity of action in the formation and preservation of animal bones. Corn-combs before being fed should be *crushed* and steamed, and would be still more desirable as food, if a small portion of bran or meal of some kind were mixed with them. For milch cows the latter mode of feeding them is particularly desirable.

Roots of all kinds. — These should be taken up and put away with care before they receive injury from frost — if packed in the open air, not more than fifty or a hundred bushels at farthest should be put in a single heap: they should have sand put between each layer and at the top, and then covered with several, say eight or ten inches of earth, so formed as to carry off all rains: at the surface, drains should be constructed to convey away the water as it may fall, and the preservation of the roots would be promoted by having a ventilator to carry off the air as it may be formed in the heating process to which all vegetable bodies are subject.

In-calf, Cows, and Heifers. — As the frost has or soon will have despoiled your pastures of their verdure, and your woods no longer furnish a supply of nutriment to your cows and heifers in calf, be careful to provide additional food, as it is important they should enter into their winter quarters in good condition and vigorous health, these being essential pre-requisites to carry them well through the winter and spring, as well as to ensure them that vigor and energy of constitution necessary to enable them to meet these demands upon their strength which are made when they are about to become mothers. Such animals should invariably have good warm dry quarters to protect them from the elements at this season, as well by day as by night — without they are thus provided a portion of all the feed you may give them will be expended in furnishing heat to their bodies.

Work-Oxen and other Stock. — These animals should be provided with quarters at night either in a stable or good warm sheds—it is important that they should be able to sleep both *dry* and *warm*, be provided with plenty to eat and good bedding.

The *young* should be kept in a separate yard from the old, and if there be any master beast among them he should be tied up and keep him from worrying the more docile animals, as well as to prevent him from appropriating to himself a larger portion of the feed than is rightfully his own. Indeed, it would be good policy to accustom all the young cattle to be tied up at night, as it tends to render them more tractable and easier handled when it may become necessary to milk or break them. When tied up, good beds of leaves or straw materially add to their comfort.

Sheep. — The sheep should be provided with a good shed into which they can retire whenever they please; without being *entirely* closed, it should be sufficiently so to keep them from the injurious effects of rain and snow. In this racks and troughs should be provided to feed them. They should be weekly provided with fresh straw for bedding, and especial pains should be taken to keep the place clean. They should be regularly supplied with salt throughout the season, say three times a week; in a trough to be under cover there should be weekly supplies of fresh tar to be spread over with salt—to this they should be furnished with boughs of the pine twice a month. Where wool is the object, small quantities of bean meal should be allowed them in addition to their long and root feed, as the beans contain more of the wool-forming principle than any other vegetable food.

Salting of Stock.—We desire to impress this truth upon the minds of our readers — that, to preserve the health of stock, it is necessary they should receive salt at short intervals—say at least twice a week. A very excellent substitute for salt may be found in a *mixture* of equal quantities of *salt*, *ashes*, and *lime*, (lime made from oystershells is preferable on account of the phosphate it contains.) The ashes should be sifted before being mixed with the other substances.

Chopping Feed. — As grain when chopped goes farther than when fed whole, by at least twenty-five per cent, we recommend that all grain fed to horses and cattle should be thus prepared and mixed with cut straw or hay. This saving in the consumption of grain is worthy of being attended to, as it will enable the farmer to sell so much more than he otherwise could, thereby putting so much more money into his pocket. But independent of the saving, by chopping the grain you present it in a form to the stomach of the animal which is easier digested, and which, consequently, tends more to encourage the elaboration of flesh and fat.

Orchards. — Dig around each tree for some four or five feet from its body, to the depth of three inches, turn out the earth, mix with it a gallon of unslacked lime, and leave it in pie till the lime slacks; then thoroughly incorporate the earth and lime together, and return it to the place whence it was taken. If your trees have not already been so treated, give them a coat of the following mixture, first rubbing or scraping off the coarse bark, 1 gallon of soft soap, 1 lb. sulphur and 1 pint of salt. Stir the whole together well and put it on the body of the tree with a brush, from the roots as far up as the branches.

Planting out Orchards.—Every farmer should have an orchard upon his farm of choice fruit, and to such as have not one already, we would recommend that he seize the occasion of the present month, the earlier the better after the leaves shall have fallen, to plant out one, as the trees will be growing while he may be sleeping, and in a very few years will afford him fine fruit for family use or for sale, provided he is careful in purchasing the most approved kinds of grafted fruit of some nurseryman is established reputation, takes proper care in the selection and preparation of the ground, in the mode of planting and after culture. That he should do so it is but natural to suppose, as the planting of an orchard is a work that is to last for a lifetime, and therefore should be done well.

The Soil. — The soil for an apple orchard should be rich and moderately moist—the soil should be deep naturally or made so.

The *exposure* should be north or north-west.

The *preparation.* — All soils intended for the transplantation of an orchard should be both *plowed deep and sub-soiled*. If it be not naturally rich, it should be manured with a compost formed, say, per aker, with twenty loads of well rotted manure or mould from the woods, fifty bushels of ashes or lime, to be well mixed together, spread evenly broadcast, and plowed in. The ground should then be harrowed and cross-harrowed, and rolled.

Digging the Holes and Planting the Trees. — The holes should be dug about three feet deep, six feet in diameter. As the surface mold is taken out let it be laid aside, and mixed with a sufficiency of rich mold as will fill up the hole when the tree is planted, carting off or spreading the subsoil which may be excavated on the surface. At the bottom of the hole place gravel stones or smalll brickbats, for six inches in depth, then fill up to the depth of say eighteen inches with the mixture named above.

This done, place your trees in the holes to the depth, or nearly so, that they may have stood in the nursery, first taking acre to trim off smoothly, allthe roots which may have

been broken. Set the trees straight up, spread out the roots fix a stake in each hole to tie the tree to; fill in the earth a few inches and pour in water from the nozzle of a watering pot enough to settle the earth around the tree, but not enough to make a kind of mortar, then fill in more earth, and settle it again with water, now fill up the hole with the residue of the earth, and form a slight basin around the trunk of the tree, press the earth down with the feet and tie the tree with a withe of straw or bass matting, when the labor of planting will have been done. If the trees shall have been out of the ground any considerable time before being planted, it will be well to soak the roots a few hours before setting them in the ground. When your orchard is planted out, so a mixture of freshly slacked lime and ashes, in equal quantities, for four feet around each tree, about a gallon to each. If the next spring or summer should prove to be dry, the young trees should receive occasional waterings, not only around the body of the trees, but over their bodies and branches also. The water should be either from a running branch or stream, or rendered temperate by exposure to the sun during the day of its application. The best *time* for watering is just before sun-down.

Young Orchards should be cultivated the first five or six years, in *corn*, *potatoes*, *cabbages* or *turneps*, but during this period of their growth should never be burthened with a small grain or grass crop. They should at all times be lightly plowed so as to keep weeds down and the soil open to the action of sun, air, and rain. If such cultivation as we name should not be given to the orchard ground, it should receive a moderate dressing of rich mold or well rotted manure every few years, say once in four years.

Corn-Houses. — Examine these, and if you find rat-holes stop them up. Then thoroughly cleanse out your corn-cribs, by sweeping and washing with strong ley; that done give them a good whitewashing inside and out, so that they may be thoroughly clean and dry, ready to receive your corn when gathered. *Fresh* slacked lime spread in a circle around the corn-cribs an inch deep, it is said will keep off rats and mice. We do not vouch for its efficacy, but as the experiment is a cheap one, it might be tried.

Poultry Houses. — These should be thoroughly cleansed and whitewashed, walls, roosts, and nests. At this season there should be kept convenient to the hen-house, both lime for the fowls to pick at and ashes for them to dust in: and he who desires his hens to lay through the winter must feed them well, alternating their feed between corn, oats and buckwheat, and give them, say once a week, small messes of fresh meat chopt up very fine.

Fattening Hogs.—As soon as the mast and nuts of your woods cease to afford food for your hogs, pen them up,—first providing their pens with materials to be converted into manure, as earth, mould, leaves and weeds. When you first pen your hogs, give to each a tea-spoonful of flour of sulphur in messes of moistened meal or bran—repeat this every other day for a week, say three times. Then you may commence your regular feeding. It is best to cook whatever pumpkins you may feed, mix a little meal with each mess, which should be seasoned with salt. The hogs should be provided with a rubbing-post — have dry covered apartments to sleep in, receive daily portions of charcoal and rotten wood, as these are as necessary to keep the stomach in tone, as corn and meal are to make the hogs take on flesh and fat. A handful of well-sifted hickory ashes given in mess feed occasionally will be found to be conducive to the health of the hogs.

Above all things let not the farmer forget that the hog is one of the best animals to manufacture manure, and that every cart-load of mould which he may supply to his pen, that he will every seven days convert into good manure. The hog should, at least twice a week, have salt put in his *trough*, that being first cleaned out and dried. He should also receive fresh water twice a day.

Gathering Apples. — Pick these by hand so that they may not be bruised, put them away in an airy room to sweat, then have them re-handled and wiped with a cloth.

Draining and Ditching. — This is a good month for this work. If you have any fields that are too wet for healthful culture, have them drained thoroughly, and you will add fifty per cent. to their arable value.

Threshing out Grain.—We advise all farmers to have their grain threshed out, in order that they may be in a condition to send it to market at the most favorable period.

Cider Making. — In making your cider, exclude all rotten apples, as a peck of such fruit will destroy a hogshead of cider. Let the pumice be given to your milch cows mixed with bran or meal and cut hay or straw.

Fall Plowing.—As all stiff clays are greatly improved by being subjected to the action of frost, if you have any fields of that description, have them forthwith plowed, lapping the furrows at an angle of about 45 degrees, so as to expose to the action of the weather to the greatest surface. But you must bear in mind that stiff clays should never be plowed when they may be said to be *wet*, but that you should select that period when they are neither wet nor dry.

Cow Sheds. — If you have not already provided your cattle with cow sheds, do so without further delay — humanity to the beasts, as well as interest to yourself, call out for their erection.

Fire Wood. — So soon as the leaves have fallen hie to the woods and have as much fire-wood cut down as will serve you a year. As soon as felled, have it hauled home and neatly piled up for seasoning and use.

Apple Butter. — As this is the season for making this, see that a supply is made for your family.

Wagons, Carts, Gearing, Implements of Husbandry. — Have all these collected together, examine each carefully, repair those that need repairs, and have the whole put away safely under cover.

Substances for Manure. — Have fifty loads of earth hauled convenient to your dwelling, make it up into a cone-like form, hollow out the top so as to form a kind of basin. Into this basin have all you chamber-ley, soapsuds, and dish-water, poured from now until spring. Immediately after every emptying, have half a gallon or gallon of plaster strewed thereon, and next spring these fifty loads of earth will have been converted into so many loads of the very richest manure you ever had on your place. Try the experiment, it will cost you nothing but the labor, and our life on it, you will practice it during the residue of your life. The heap to be mixed before being used.

We have thus sketched such hints as presented themselves to our mind, and enjoining it upon you to supply everything we may have omitted, we shall conclude by wishing you health and happiness.

NICKING HORSES.

A correspondent, who signs himself O. Smith, requests some directions for nicking horses. Now we never performed that operation but once, and although that succeeded well, yet we do not profess to be an adept in the business, or to have any great experience in the operations. There are those, in almost every town, who perform this operation, and our friend would learn more by seeing the operation done than by reading a week. Nevertheless we will give him such advice as we have.

The object of nicking a horse is to cause him to hold the tail up and prevent his pressing it down strong when he may catch the reins beneath it. There are two sets of muscles to the tail—those that are used to elevate and those that are used to depress it. Those to elevate are stronger and more numerous than the others. Those used for depressing soon form tendons, (cords,) which run along on each side, beneath, and attach themselves to the bones at the extremity. If these are cut off, the upper or elevating muscles predominate, and very naturally raise the tail by their action, the resistance to their action, being nearly destroyed. The arteries which convey blood to the tail, generally lay on the upper side, near the bone, so that there is not so much danger of cutting them in this operation.

Formerly the operation of nicking was performed by cutting across the under side of the tail, so as to divide the tendons completely, and by keeping the tail elevated, the two ends were separated, and a callous was formed between them, filling up the gash when healed. This is not a good method. In the first place it is longer healing, and in the next place there is more danger of inflammation and mortification. The mode now followed is to cast the horse and secure him, and then run a long slender knife in near the margin of the hair, on the outside, *under* the cords, and cutting outward until the cord is separated, but not cutting

through the skin. This is done in two or three places on a side. In this way there is no visible wound, except the small hole where the knife entered, and the skin being preserved whole over the cut tendons, conveys the necessary fluids, and causes it not only to heal faster, but prevents much trouble and inflammation by keeping out all foreign matter. As soon as the tendons are separated the tail should be turned forcibly back, in order to draw the ends of the cords from each other, and the horse may be suffered to get up and be loosed. The hair at the end of the tail is then looped, a pin put through, to which a string is placed, attached to weights which pass over pullies above in the stall, by which the tail is kept elevated two or three weeks, until the wounds have healed.

These pulleys are in general use, but we have seen a much better mode adopted. The objection to the pulleys is that by the motions of the horse in the stall they are often made to have an unequal tension, and do not always keep the tendons sufficiently apart.

The plan which we allude to is the following. Pads may be made like the stuffed pads of a riding-saddle, or what would be better, a wooden saddle may be made so as to fit the rump of the horse, just back of the hips. On the top of this is fastened firmly a piece of wood which is grooved so as to just let the tail, when it is turned back, lie snugly in it. Holes may be made in the sides of the grooved wood, thro' which to pass straps or pieces of webbing which may be used to lash the tail firmly but with not too great pressure in the groove. The tail being thus turned back and fastened into the groove, the machine or saddle must then be fastened firmly, so as to keep the tail in its place. To do this the following plan may be adopted — a pad or small wagon saddle may be put upon the back of the horse, which is to be held in its place by a girt going around his belly in the common way, and another from the front part of the saddle around the horse's breast. A strap like the crooper strap goes from the back part of the saddle, along the back, and is attached to the machine as it is to the crooper. Another girt may be attached to one side of the machine, and pass diagonally across the flanks of the horse, down and forward to the belly girt to which it is fastened, and then back on the other side of the horse up to the opposite side of the machine, where it is buckled. In this way the machine will be kept in its place, and the tail also, let the horse put himself in what position he may.

Some dock the horse, if it has not been done before, at the time of nicking; others wait and let the tail heal somewhat before the docking is done.

Care should be taken to ward off inflammation, for the hair, in such cases, will come out, and the wounds are much longer in healing.

Take the tail down every two or three days, and bathe in warm vinegar, and if the hair begins to come out, bathe it in tincture of myrrh, and give the horse something of a laxitive nature.

After a week has elapsed let the horse stand without the machine a few hours, and also ride him about for exercise, and to see how he will carry his tail.—*Maine Farmer.*

AGE OF POULTRY.

Farmers usdaily sell poultry alive, excepting in some parts of the country, such as the Borders, where geese are killed and plucked for the sake of their feathers before being sent to market. Poulterers in towns, on the other hand, kill and pluck every sort of fowl for sale, so that the purchaser has it in his power to judge of the carcass; and if he buys an inferior article at a high price, it must be his own fault. It is easy to judge of a plucked fowl, whether old or young, by the state of the legs. If a hen's spur is hard, and the scales on the legs rough, she is old, whether you see her head or no; but the head will corroborate your observation, if the under bill is so stiff that you cannot bend it down, and the comb thick and rough. A young hen has only the rudiments of spurs, the scales on the legs smooth, glossy and fresh colored, whatever the color may be, the claws tender and short, the under bill soft, and the comb thin and smooth. An old hen-turkey has rough scales on the legs, callosites on the soles of the feet, and long, strong claws; a young one the reverse of all these marks. When the feathers are on, and the old turkey-cock has a long beard, a young one but a sprouting one; and when they are off the smooth scales on the legs decide the point, besides difference of size in the whattles of the neck, and in the elastic shot upon the nose. An old goose, when alive, is known by the roughness of the legs, the strength of the wings, particularly at the pinions, the thickness and strength of the bill, and the firmness and thickness of the feathers; and when plucked, by the legs, pinions and bill, and the coarseness of the skin. Ducks are distinguished by the same means, but there is this difference, that a duckling's bill is much longer in proportion to the breadth of its head than that of an old duck. A young pigeon is discovered by its pale colored, smooth-scaled, tender, colapsed feet, and the yellow long down interspersed among the feathers. A pigeon that can fly has always red colored legs and no down, and is then too old for use.

Stephen's Book of the Farm.

DEPENDING ON A SINGLE CROP. — Some farmers whom we know, advocate the idea of dividing the labor of farming in such a way that but one kind of produce should be raised on a farm or section of farms—such as hay, or potatoes, &c. This is bad economy. It may be right and proper for every farmer to consider the capacity of his farm — what it is best fitted for, and make that a leading object But to depend upon a single article of produce is not the best economy. This is done on many plantations of the South, where attention is turned wholly to cotton alone, or sugar or tobacco alone; but if the statements of the most judicious observers among them can be relied upon, it is not the most profitable mode of management.

Ireland has depended for years on the single article of potatoes, and how has she fared at last? One of the most unprecedented famines of modern days was the result. A writer, over the signature of "Reviewer," in the November number of the American Agriculturist, says that a friend of his left New England, where he had been accustomed to raise *every thing*, and settled on a large plantation of the western prairie land. He writes him, "I am ruined. I have spent everything I had, and am in debt besides, in putting in 400 akers of wheat upon this rich, tempting prairie soil, and it is all winter-killed. I did not intend to put in any spring crop, having previously determined to devote all my attention to wheat; and now I cannot, for I have no means Well, I have learned a good lesson—never to rely upon any one crop."

We think those among us who are getting into the one crop system, would be wise to profit by the experience of others in this thing.—*Maine Farmer.*

PIT COAL.

If, of the two motive powers, water and steam, the latter is not only more convenient but less expensive, it is important to know where steam can be produced at the least cost.

Were I to state, briefly, that our western coal fields are more extensive, richer in quality, and far more accessible than any other known; that, on the Ohio, we can obtain coal at four cents per bushel as good as that which sells at sixteen cents per bushel at Manchester, England, I might not be believed. We have heard and read so much of the enormous quantity of coal used in and exported from England, of the wealth it has produced, and of the dense population on and around her coal measures, that we infer that the English coal seams are of greater purity, of vast thickness, and more cheaply worked than in any other country. Text books and Encyclopædias give us very few details of collieries; and the following facts, which I have gathered from books devoted exclusively to the subject, and from topographical works, may be of interest, while they sustain my position.

The only coal measures of practical interest to us are those of France, Belgium, Great Britain, Nova Scotia, and the United States. There are indications of coal in about thirty of the departments of France—that of Aveyron, near Spain, is said to be the most extensive, but, from the character of the country, or some unknown cause, is least worked. The last authority I can find, gives only 7,000 persons employed in all the departments of the coal mines, and the supply of coals for the French steam marine is obtained

from Belgium and England. There is a bed of coal, about 700 feet beneath the surface, extending from Valenciennes, France, under Mons and Namur to Liege, in Belgium. This is 150 miles in length and six miles in width, and about 35,000 colliers are there employed. The quality of the coal is inferior, and its cost and distance from the sea prevents its coming in competition with the English coal.

The coal beds of Ireland and Scotland are, on the whole, inferior to those of England, but have the same general characteristics. The coal measures of England are west of a straight line drawn from Gosport to the mouth of the river Tees; the most important being on the British Channel, in South Wales; in Flintshire, North Wales; in Lancaster and Cumberland on the Irish Sea; Durham and Northumberland on the North Sea; and in Staffordshire and West Riding in central England. The coal in South Wales is only used on the spot for the smelting and manufacture of iron in the smelting of copper ore brought from Cornwall, and in the manufacture of tin plate. The quantity thus used is about 40,000,000 bushels per annum. The Lancaster and Cumberland mines supply manufacturing cities in these counties, Liverpool and other cities on the channel, and a large quantity required for exportation to France, the West Indies, the Mediterranean, Ireland, and the United States. I may here remark that this coal (known as "Liverpool," "Orell," &c., in the Eastern and New Orleans markets) will continue to be imported by us, at the present duty, as long as it will bring from 20 to 25 cents per bushel; but at this rate, it cannot pay freight. It is used as ballast, and of course the price at which it is sold is no criterion of its cost.

The Durham and Northumberland, known generally as the Newcastle, collieries supply the western and southern sections of England, and the demand in France, Belgium, and the Baltic, the chief market being London. Of the quantity required in that city some idea can be formed from the consumption of nearly seven millions of bushels in her gas works.

The coal of central England is used in Birmingham, Stafford, Sheffield, and other manufacturing cities. Edinburgh is supplied with coal from the vicinity; and the extensive cotton manufactories of Glasgow and Paisley are also furnished from the collieries in the immediate district.

In stating the *cost* of coal to the manufacturing consumer and for domestic purposes this explanation is necessary: It is of kinds and names unknown to us. Seven distinct varieties are sent to London, and the screened and the small coal, the slack and the cinder of the same variety are of different prices; often several varieties are combined, and the pieces are as numerous as the compounds. Bovey coal is a bituminous wood, holding an intermediate place between peat and pit coal; yet it is worked an hundred feet "below the grass." Sulphurous coal is dangerous to work; clum is of but little more value, and neither are used when better coal can be had. The Orell and Canal varieties are the best for manufacturing purposes, and come nearest, in appearance and value, to our western coal. At New Orleans, for manufacturing purposes, the Pittsburgh coal is, on the whole, preferred to them; at the Boston gas works the Indiana coal has been tested with and found superior to them; and in the accurate and numerous experiments made by Prof. W. R. Johnson, under direction of Congress, both Pittsburgh and Indiana coal are proved superior to the best Liverpool and Newcastle coal for the generation of steam. When we shall separate the lamina of our coal seams, we shall probably find all the best varieties for the manufacture of iron known in England.

At Sheffield the prices of household coal (a mixture of hard, small or *slack*, and round or *cobblings*) is near seven cents per bushel; the strong, clear, and hard kinds used for iron work, about 14 cents. The immense consumption of coal in Manchester, is supplied from collieries within eight miles, and at the cost of from 6 cents to 16 cents. The Leeds coal is inferior and sells at about 7 cents. At Liverpool the average price of *small* coal is quoted at 10 cents, and of *hard* at 13½ cents. At the Staffordshire potteries the price is occasionally less than 6 cents; but the coal seam is so soft that only one-third is mined.

The London prices quoted are: "Hetton" and "Walsend" 24 1-10 cents, and Newcastle, first and second qualities, average 22½ cents. These high prices, however, are caused by city charges and transportation.

By the term "hard" coal is meant the hard layers of bituminous coal.

I do not find any tabular statements of cost except in connection with gas-works. Here, generally, the best Liverpool Wigan and Cannel is preferred, and I give the table below, taken from report of J. Hedley, to the House of Commons in 1837:

	Price per Ton.	*Price per Bush.*	*Description.*
Birmingham,	11s. 10d.	$0.108	Bromwich.
Staffordshire,	9 3	.095	do.
Macclesfield,	8	.074	Common.
Stockport,	15	.136	Half cannel a 19s 6d.
Manchester,	15 2	.138	Mixed.
Liverpool,	18	.163	Cannel.
Bradford,	8 6	.077	3 sorts used.
Leeds,	8	.074	¼ cannel.
Sheffield,	7 9	.072	3 sorts used cannel a 16s
Leicester,	13 6	.119	Derbyshire soft coal.
Derby,	13 6	.119	do.
Nottingham,	13 7	.119	do.
London,	17	.154	Newcastle.
		$1,477	

Which gives an average of over 11 cents per bushel. If we take the average of coal, equal in quality to Pittsburgh, the average price at the great manufacturing cities of Birmingham, Manchester, Leeds, and Sheffield is from 14 to 15 cents per bushel. 26 bushels and 24 lbs. of our coal make a ton. I give 26½ bushels to the ton. The respective weights, per cubic foot, are:

Liverpool,	78 89
Newcastle,	78 54
Pittsburgh,	78 37
Cannelton, Indiana,	79 55

according to Prof. Johnson's report. The advantage of the calculation, therefore, is against us. And yet, in ignorance of the facts, many of our men of capital and enterprise doubt whether we can enter into competition with English manufacturers, because of the cheapness of English coal!

THICKNESS AND DEPTH OF THE COAL SEAMS.

South Wales.—The beds have been worked 2,100 feet below the surface, although generally it has not been found necessary to go deeper than 480 feet. There are 12 seams between 3 and 5 feet; 11 from 18 inches to three feet, and several which are not worked from 12 to 18 inches thick.

Whitehaven.—The Howgill mine is 600 feet below the bed of the sea, and carried 3,000 from the shore.

Dunham.—The most important colliery is the Montague, 3½ miles above Newcastle. Of this, the Benwell main is 4 feet 9 inches thick—305 feet deep. The Beaumont seem 3 feet 4 inches thick—409 feet deep. Low main 2 feet 11 inches thick—882 feet deep.

Of the superincumbent mass 301 feet is whinstone and post; the first of which is so hard that angular fragments will cut glass, and the latter is a hard kind of freestone suitable for grindstones.

Cumberland.—"King's pit," near Whitehaven; one seam is 12 feet thick—726 feet deep. 2 seams 2 feet thick—900 feet deep. 3 seams 6 feet 1 inch thick—1,293 feet deep.

Ashby—At a depth of 475 feet, 5 beds of different qualities are worked, averaging about three feet in thickness.

Sheffield.—The principal seams worked near Sheffield, are, 1. Seam 4 feet thick—depth not stated. 2. Seam 2 feet 3 inches thick, and 78 feet below the first. 3. Seam 3 feet 9 inches thick—198 feet below the 1st. 4. Seam four feet 6 inches thick—498 feet below the 1st. 5. Seam 5 feet thick—

1,098 feet deep. 6. Seam 6 feet thick — depth not stated. Of these the second seam is largely worked, and known as furnace coal. The third has 7 lamina of different qualities. The 4th is, in working, separated into 8 layers, the lowest portion being cannel coal, and used exclusively in the Sheffield gas works. The fifth, or "mat.or seam," has 15 layers, including two of soil. The sixth, or "Sheffield bed," has 6 or 8 varieties, some abounding in iron pyrites.

Northumberland.—The shallowest pit is 138 feet deep, and the lowest 1,280 feet perpendicular; of which the shaft alone cost $350,000.

At Monkwearmouthshire, the boring commenced in 1826, and had reached in 1835, as low as 1,590 feet, passing thro' but a single available seam, at a depth of 1,578 feet; and, indeed, none other was looked for under 1,800 feet deep. In working this shaft about $500,000 had been expended!

"In the 'Alfred' pit, at Jarrow, there is a thirty-horse steam engine, erected at a depth of 78 feet below the surface, and used in raising the coal up a shaft which unites with the workings carried out 270 feet deeper still. At this profound depth, another engine draws the coals up an inclined plane that lies coincident with the dip of the strata."

At the "Swan banks" colliery, near Halifax, the "hard bank" coal seam 2 feet 3 inches thick, is 442 feet deep, and the "soft bed" coal 1 foot 5 inches thick, is worked 812 feet below the surface.

The foregoing are about the average of the coal beds in England. The thickest seam is that called the "Ten Yard Vein," near Dudley. This, however, as is the case in all very thick beds, if difficult to work. The coal is tender, the roof is not firm, and only about one-third of the coal can be taken out. Besides, thus far, no machinery has been found in detaching blocks of coal from the mass. Where the ordinary pick is insufficient, gunpowder is used, and wherever this is required, Davy's safety-lamp would be superfluous. The seams worked at the least expense are from 5 to 8 feet thick. Of the average depth and thickness of the coal in England, I have no precise data. It is safe, however, to estimate the depth at between 600 and 700 feet, and the thickness from 3 to 3½ feet.

The cost of reaching and working these mines is enormous; cheap labor and capital only could sustain it. Where else but in England, would a capitalist persevere for nine years and expend half a million of dollars without any return, on the judgment of a "coal-viewer" or geologist?

The labor and cost of raising the coal from such depths is but slight when compared with that required to drain and ventilate the mines. Drainage is sometimes effected by "adits" or drifts. The Cornish adit, for example, extends its ramifications about 26,000 fathoms, and empties into Falmouth harbor. The adit of the Duke of Bridgewater's mines, at Worseley, is a prodigous work, about 30 miles long and navigable for barges. But, generally, the water is taken from the mines by the use of the steam engine. For this purpose the "South Hetton" colliery has three engines of 100 horse power each, and one of 300 horse power; of the latter, the beam contains 81,840 pounds of iron, makes 15 strokes per minute, and raises 800 pounds of water at each stroke. The cost of this engine was £10,000. And yet coal mines are often inundated, and sometimes thereby rendered useless.

The process of ventilating the mines is complicated and costly and so imperfect that the mines are never entirely safe from the deadly effects of the fire and choke damp. After the awful tragedies at the Pit mines, it seems strange that man should risk a similar catastrophe; but, in England, life is as cheap as capital or labor.

I cannot, without extending this paper to a great length, enumerate even all the important obstacles in the way of the English collier, but cannot omit reference to "dykes."

"Dykes," says Mr. Coneybeare, "are an endless source of difficulty and expense to the coal owner, throwing the seams out of their level [at Clackmanshire 1,230 feet] and filling the mines with water and fire-damp." And yet, Prof. Buckland thanks God for so placing these "faults;" "for, without them," says he, "the mines could not be drained by the powers of the most approved machinery."

The statesmen of England attribute her great prosperity and power to her coal fields, and Parliaments have anxiously enquired of the surveyor and geologist whether the supply would last two or three thousand years longer. They may, in time, hear of our vast beds of the same mineral, of superior purity, without a "fault;" which is found by drifts and not shafts; which require no artificial means of drainage or ventilation; in whose veins life is safe and labor not irksome; and which underlies a soil of unsurpassed fertility; and they may remember the fate of Thebes, Athens, and Rome, and reflect that the amount of capital, no preponderance of power can long sustain a city or State when competing with superior *natural* advantages elsewhere. S.

Nov. 1, 1847.—*Louisville Journal.*

FARM-BUILDINGS.---HOUSES.

We fancy we can give some useful advice to young farmers who have not much experience in building. In regard to cuts and patterns on paper we have nothing to offer; for a drawing of a house or a barn gives no instruction to those who are not familiar with drawing.

One of the first principles relating to building is, *to set your structure on your own land.* For he who builds on another's soil will be likely to find a sandy foundation.

A second principle is, "build not too high;" that is, as John Rogers would explain, build no larger castles than you need, or will be presumed to need within a very few years. For empty buildings are a heavy drawback from the profits of a farmer. Let us calculate a little. You expend this year five hundred dollars for house-room that you do not want at present, — but your carpenter, your mason, your painter, and all your workmen are ready with their advice.

They say to you, "build large enough when you are about it; you will want more room by and by, when your family is larger—don't build a small house." Well, you have 500 dollars-worth of empty room that gives you no convenience. You are taxed yearly for a 2,000 dollar house when you want no more room than one 1500 dollars would afford; and you must keep the whole in repair; at least the outside must be kept decent, and you must paint the whole once in five years. Here are two important items of expense that might well be avoided, to say nothing of the extra furniture that must be procured in case the whole is finished.

Now your building has stood twelve years, and you think you must finish and furnish the whole, since your family has increased so much as to need it. You find you have paid away for extra taxes 5 dollars per year — 60 dollars. Twenty dollars more for extra painting, making 80 dollars, saying nothing of the wear of shingles that have already run half their course. Half the cost of the extra shingling must therefore be counted, and this will not be less than 30 dollars. Here are 120 dollars paid extra for room that you did not need and did not use, for twelve years.

But think not that this is all; the 120 dollars, to keep your building along, is but a small part of what you lose. The 500 dollars extra outlay at first would now amount to more than ten hundred, at 6 per cent. interest. And in your business, that always lacks capital, the 500 dollars would have been worth 8 per cent. to you in preference to hiring that sum of any bank in the State; for banks demand interest every sixty days, and that *in advance;* and they will have a surety or two, let your credit be what it will, and you must leave your business and go hunt up your friend, and obtain his signature once in two months.

All this trouble *you may be put to,* in case you must have a loan of $500. We say, therefore, that rather than be dependent upon bank capital to carry on a farm or a trade, your $500 in hand would be worth at least eight per cent. to you annually; and instead of counting the loss of capital at $500, it should be at least 600. This added to the 120 makes 720 dollars.

This sum you sink almost entirely by building 'too high' —too large— at first. For if you begin judiciously with a plain roof and a gable end, you can add more to your first building almost as easily as you could obtain the same room by erecting a large frame at first, and you have $270 in hand to do the work.

The case is the same when barns are erected; and a young man with small capital will do better to stack a part of his fodder for a few years, as the English do, than to make extensive and expensive erections at first, on borrowed capital.

A farm-house should have a cellar under the whole of it; for if a part rests on a cellar wall and a part on the simple underpinning of stone; one part will rise ond fall as the frost enters and quits the soil, while the other remains firm on the cellar wall. This causes such a racking as to affect materially the shutting of the doors and windows; and a house may as well have no cellar wall to stand on as to have a wall under a part only.

2. A building for use, and not for ornament merely, should have a form as nearly cubical as it may be, for a cube has less outside surface in proportion to its capacity than any form whatever. If you make a frame 20 feet by 20 feet you have 400 square feet on your lower floor. But suppose your frame to be 100 feet long and 4 feet wide, you have then 400 square feet, and have more than twice as much outside surface to cover as in case of a square frame.

And so it will prove in all cases in proportion as you depart from a square form at the foundation, and from a height in due proportion to the base. An ell house for instance, requires as much outside boarding and clapboarding and painting as if all the sides were of equal length, or formed a square; and you have only space enough for three rooms instead of four.—You may thus lose one quarter part of your room, and yet have as much clapboard surface, &c. as if your square was filled up and you had four rooms.

It is as absurd therefore to depart greatly from a cubical form in building as to depart from a square form when lots are laid off to be fenced. One man has an aker, one rod in width; his fence costs him almost twice as much as it would if his land was two rods wide; and as he proceeds to widen the lot, and shorten it his fencing is less and less till he comes to a square form.

In regard to height the principle is the same, and a house or a box whose sides are all equal will contain more in proportion to its outside surface than an oblong, or a flat figure. A house three stories high requires no larger foundation, or roof, than a house of one story. But in the country, where building lots are not costly, a very high house may not be an economical structure; for high stories or lofts are not so accessible and valuable as others. The customary mode of building two stories high is as convenient as any, and custom has made such buildings appear suitable, and well adapted to the ends to be answered.

The ridge of every roof ought to run nearly north and south, because the shingles last longer when the sun can shine properly on them and dry tham when they never feel the sun; as the back side of some buildings; or when they feel the sun so powerfully as to be warped or crippled.

There is a proper pitch for the roof of all buildings which will drain off the water soon after it falls and suffer the roof to become dry immediately. But the right pitch is often varied by whim and fashion. Ancient houses are found with very steep roofs. Forty years ago there was a rage for flat roofs; and now, within a few years, carpenters are approximating again to the old sharp form of roofs. When roofs are made too nearly perpendicular they are too expensive, and give no valuable room in proportion to their surface. When they are too flat they fail to carry off the water readily, and the shingles remaining wet for a long time after a shower, become rotten in a few years.

Roofs ought to pitch about 45 degrees in order to carry off the water well. Your garret will then be worth something; though garret room is the most costly of any and of the least value; but it is worth something.

We may have something to offer in our next paper in regard to the materials for farm buildings, particularly for houses. We may build at less cost than we now do if we would cultivate the right kind of pride. The finical, gingerbread work that often appears in what are called *stylish cottages*, is not in good taste. There is too much labor bestowed in making ugly angles that are not easily kept in repair and not easily painted. The leading principle should always be kept in view—*that the outside should be so formed as to afford the largest quantity of room.* The roof in particular should be as plain as possible, and free from angles. There is then a chance for its turning off the water well, and it is easily repaired.—*Mass. Plowman.*

What is worth doing at all, is worth doing well.

PRESERVING APPLES.

We have but few apples in the State this fall. It is probably the lightest crop of apples that we have had for the last eight years at least. It is therefore incumbent upon us to husband the crop in the most economical manner, and preserve them in the best way we can.

The following directions are from Downing's "Fruits and Fruit Trees of America." In order to procure soundness and preservation, it is indispensably necessary that the fruit should be gathered by hand. For winter fruit the gathering is delayed as long as possible, avoiding severe frosts, and the most successful practice with our extensive orchardists is to place the fruit directly, in a careful manner, in new, tight flour barrels, as soon as gathered from the treee. These barrels should be gently shaken while filling, and the head closely pressed in. They are then placed in a cool, shady place, under a shed, where they remain until the cold is too severe, when they are to be removed to a cool, dry cellar, into which air can be admitted occasionall in dry, brisk, weather. The cellar should be kept as dark as possible. So far we copy from Mr. Downing's plan.

Some of our best orchardists in Maine begin to pick by the first of October, and let the apples lie in heaps to sweat some. They will shrink by this operation, but when wiped dry and put into barrels, they swell sufficiently to make a tight fit, and keep well and transport well from place to place. Many prefer the new pine barrels, made on purpose, and not so tight as flour barrels.—*Maine Farmer.*

Flax-breaking, Scutching, and Hackling Machine.—On Thursday evening we witnessed the operation of a new machine, invented by Mr. N. L. Williams, of this city, for the breaking, scutching, and hackling of flax. It was in operation at the Washington Foundry, on Second street, where it may still be seen if it has not been shipped to an establishment on the upper Mississippi.

The breaking is perfectly accomplished by means of solid and polished cast iron rods, ribbed in a peculiar and serpentine form. In addition to the mode of scutching in the large hemp machines, which we spoke of some days since, there are attached to the same cylinders fine spiral hackles of brass, by means of which the fibre is perfectly softened and hackled, at the same time that it is broken and scutched.

A friend has furnished us the following commendation of the machine, and statement of the profits which may be expected from the cultivation of flax.

The process is effected so rapidly, that two children can work the machine, and do the work of twelve or fifteen persons by the Belgian mode of hand cleansing. Flax properly rotted and cleaned commands from £50 to £60 per ton in Liverpool: returns have been made at these prices on lots sent from the factory of E. K. Rugg, Esq., of Rock Island, and the flax pronounced equal to the best Flemish. No difficulty exists in the rapid and uniform rotting of the stock by the process Mr. Williams has discovered for hemp, and if the plant be not prematurely pulled, the waste by the use of the machine is as little as that by hand-cleaning.

Throughout the northern and north-western States our soil and climate are peculiarly adapted to the culture of flax; and we are told that that grown in northern Illinois, Indiana and Ohio is unsurpassed by the products of any part of the world. It must, we think, soon become one of our most important staples, and we commend the very important inventions of Mr. Williams to the attention of agriculturists throughout the flax region as well as to hemp growers in our own State.—*St. Louis Republican.*

The Hessian Fly.—The idea advanced by the writer of the following—(which we clip from the editorial columns of the N. Y. Christian Advocate and Journal)—is new to us, but may, nevertheless, be true. It is worthy a careful investigation by agriculturists.

"With regard to the Hessian fly—perhaps improperly so called—I profess to know something from a long course of observation. I remember the first invasion of Maryland by this insect, and have attentively watched its progress, and noticed its peculiar habits; and the result is the settled opinion, that a wise Providence has so ordered it that good hus-

bandry may bid defiance to the fly. The insect deposits one set of eggs in autumn, and one more in the spring. The first may be avoided by sowing after the season for depositing the egg is past, say — in Maryland — during the first ten days of October. Further north, I suppose, it may be safe to sow a little earlier. The effects of the spring deposit will be rendered nugatory by making the land rich, and preparing it well for the seed. The extirpation of all weeds, and all grasses which impede the growth of the wheat plant in the spring is a *sine qua non*. For the fly will deposit its eggs just above the first joint, and under the first blade, of nearly every wheat shoot in the field; and from none of these first shoots may wheat be expected. But if the ground be clean, and in good heart, other shoots will put out in abundance, and with these the fly will not interfere. But if the wheat has been sown so early in the fall that the first shoots have been lodgments for the eggs, and have been arrested in their growth during autumn, and the second shoots are destroyed in like manner in the spring, though the plant will still make an effort to tiller, and put out a third set of shoots, the vitality of the plant will have been too much exhausted to produce much grain, or even straw, and indeed will mature too late in the summer to allow the farmer much hope of reward in his crop."

SMOKE-HOUSES.

The Westphalia method of smoking hams, noticed in the 5th vol. of the Agriculturist, p. 346, cannot be too strongly recommended to every person who cures his own bacon; and I have observed with great satisfaction, during a recent visit to the Keystone State, that it is not very uncommon in Pennsylvania. In several farm-houses I saw that the smoke-house was a room in the garret through which the flue of the kitchen chimney passed, which was neither ceiled nor plastered, but carefully whitewashed every fall, before the meat of the winter's killing was ready to be put into it. There was no outlet but the door, and a small trap-door in the roof, which was crossed by rafters, into which hooks were driven for the meat to hang upon. None was suffered to hang against the wall, as that side would receive no smoke, and become damp and sodden. The smoke, which is almost cold when it reaches so high, was admitted through a hole in the chimney a foot or eighteen inches from the floor, and passed freely through the cracks in the roof, where the house was low, as in two or three instances, the danger from fire was guarded against by ceiling the room, and leaving small loop-holes for the escape of the smoke.

The only disadvantage, if it be one, in this way of smoking meat, is, that it require nearly double the length of time to cure it that it does in the common way. Frequently, however, it is left in this room until it was wanted for use, or is taken down only during the hottest part of the summer, where the roof is not shaded, and there is danger of its being overheated. The flies do not trouble it while the room is kept perfectly dark, and more or less filled with smoke, as must be daily from the kitchen fire. Our Maryland smoke-houses, though built on a very different plan, produce the same effect, and I believe none will dispute the fact that Maryland, and her sister Virginia, produce hams superior to those cured in any other State in the Union; and when two years old they are thought by epicures to equal the Westphalian. Some attribute this to the custom of allowing the hogs to run in the woods until late in the fall, where, by feeding on acorns, nuts, and roots, the flesh acquires the peculiar flavor of wild meat; but compare a real Maryland or Virginia ham with those from any other State where the same liberty is given to the hogs, and the difference will be acknowledged to be in the manner of curing and smoking the meat—not in the treatment of the animals.

Our smoke-houses are generally built of logs, rudely plastered outside with clay, and thatched with straw. The hams are hung upon hooks driven into the rafters. The fire of chips, which is covered with saw-dust to prevent a blaze from rising, is made in the middle of the floor, and the smoke, after having done its duty, is permitted to escape freely thro' the innumerable cracks and openings in the walls and thatch. E. S.

Eutawah. *American Agricult.*

FORMATION OF A POULTRY YARD,

As soon as it is determined to have a poultry-yard, and the breed or breeds have been determined on, for some of them should be sitters, and others should supply the nests and the table with eggs, great care should be taken in the selection of the fowls; for on their healthiness, or freedom from disease, success will chiefly depend. The signs of health are as evident and as certain in the feathered tribes as in the quadrupeds. The glossiness and smoothness of the feathers, the brightness of the eye, the cleanness of the nostrils, the florid redness of the comb, the soundness of the legs, and the shortness of the claws, will be sufficient pledges of health. The male should be large of his kind, and bold and active; the hens should be gentle and tame; and, as sitters, by no means above the middle size; a small comb on the hen may be pardoned, but should not be chosen. A large comb is a frequent pledge of her unquietness, and rarely belongs to the good sitter or careful nurse. They should be of a middle age, from eighteen months to two years. Before that period, the eggs will not have attained their full size, and the young broods will be proportionably small. The first inhabitants of the fowl-yard, and which will give to it its future character, should not be bought from a stranger; but there should be a certainty that the hens are good and early layers, and that they begin to lay again as soon as their broods disposed of.

Where a considerable number of fowls are kept, a poultry-house, however small and simple it may be, should be devoted exclusively to their use. In a farm establishment, it is particularly necessary, otherwise the owner will materially suffer. They will wander away, and be liable to be killed by foxes, hawks, &c., and the eggs will be laid in all kinds of places. This building, although well ventilated, should be warm and comfortable. Few animals suffer more from cold than our domestic fowls. The roosting places should be easy of access to the poultry, but sufficiently high to be out of the reach of vermin, and they should consist of one or more level ranges. The boxes for laying and sitting, should be convenient and warm, apart from each other, and sufficiently numerous. If there be sufficient space, a yard-house should be fenced in, communicating with the poultry-house, and in which the whole stock may be occasionally confined. If it contain a stream or a pond of water, that would be a considerable advantage. At all events, if the poultry wander about the yard, or other parts of the premises, their roosting, laying, and sitting place should be comfortable, closed at night, and there they should always be fed.

The poultry-yard should be dry. It should be sheltered from the northerly winds; oyster-shell lime, gravel, and bricklayer's rubbish, should be strewn in different parts of it, in which they may roll themselves at their pleasure. This is more conducive to the health of the fowls than is generally imagined, not only cleaning the feathers, but getting rid of eruptions and vermin, and favoring that most important of all functions—cutaneous perspiration. ZACH.

American Agricult.

AYRSHIRE COW.

We said something a few weeks ago about the Ayrshire breed of cows which has been introduced by the State Society, under the most improved form, to which the breed has been carried: for the Ayrshire now is a much superior animal to the Ayrshire of a dozen or fifteen years ago. It is said by a very competent observer, that the farmers of Ayrshire have such a reputation, that it would be difficult to find their superiors in any part of the kingdom of Great Britain; and he terms them "the excellent farmers." Such is the value of this breed for milk, that some of the large farmers of Ayrshire are in the habit, under what is called in Scotland the *boyeniug* or milk-pail system, of letting the cows to smaller families, who pay the owner ten pounds (about fifty dollars) *a year*. The owner provides for the cow and incurs all risks. The lesse takes the entire management and care of the cow, and generally gets ample remuneration, even after paying the ten pounds. This certainly speaks strongly for the character and capacity of the stock.

We have in the county of Hampden a great variety of Durham stock. This is undoubtedly a very valuable race;

but we think there is no doubt it must yield to the Ayrshire so far as milk is concerned. It may be stated, however, that a cross of the Durham with the Ayrshire, is regarded where the experiment has been made, as an improvement. Colman says, as the result of his observations in Great Britain, that the first cross is invariably a fide milking animal; this point, says he, may be deemed established.

Springfield Republican.

APPLE-ORCHARDS.

Soil and Situation.—The apple-tree, to attain its greatest perfection and productiveness, requires a soil more or less calcareous, or on that rests upon strata abounding in marls, marly clays, or calcareous sandstone. It has been observed that the best apple-orchards in England are situated on the marls of the old red sandstone of Herefordshire; and those of the new red sandstone, the marly clays of the lias, and the calcareous and often marly beds of the inferior oolite, in the counties of Worcester, Gloucester, Somerset, and Devon. It has also been observed in Ireland, that the apple-tree flourishes best on limestone gravel; and in Scotland, that the few orchards which exist in that country, are to be found on soils more or less calcareous. On the continent of Europe, the two districts most famous for the apple are Normandy and the vale of Stutgard, in both of which the soil is well known to abound in lime or marl. It has also been observed, that early fruits attain their greatest perfection in light, moderately rich, sandy soils; and that the late fruits succeeded best when planted in a soil that is strong and clayey. Trees will sometimes grow luxuriantly on deep gravels and grauwacke-slate, without bearing apples. It has been found by experience that the above named principles will hold good in the various parts of the United States. Within the last few years, much light has been thrown upon the adaptation of soils to particular plants, and it is now regarded as an established fact, that the apple-tree requires alkaline and probably earthy bases, as an indispensible condition to the perfection of its fruit. It has been shown by several enlightened chemists that the abids generated in plants are always in union with alkaline or earthy bases, and cannot be produced without their presence, that all deciduous trees require a considerable portion of potash for the elaboration of the juices in their leaves, and that they are prosperous or otherwise, in proportion to the scarcity or abundance of that substance in the soil. It is well known that all clays contain potash, and that marls are principally composed of clay and carbonate of lime, and also contain potash, besides sulphate and phosphate of lime. Hence the presence of alkaline and earthy bases, particularly potash and lime, affords a satisfactory solution of the adaptation of marly soils to the production of apples, even without taking into account the part which phosphate and sulphate of lime play in their formation.*

With regard to the aspect best adapted to orchards, the surface, in general, should be more or less undulating, and at the same time sheltered from the extremes of heat and cold; and it has often been remarked, that abrupt acclivities, which are too steep for tillage by the plow, or for the pasturage of heavy cattle, have been more certain in the production of fruit. Very open, or very elevated, exposed situations, as well as the bottoms of deep-sunk valleys, are alike unfavorable to the perfection of orchards. The former, from the low temperature and the violence of the winds and the latter from the liability to cold fogs and late vernal frosts at the time the trees are in blossom, often, in one fatal night, utterly destroy the husbandman's hopes. A severe frost in early autumn, in a single night, may prove equally fatal to the tender flower-buds, in the latter situation, or, if not fatal, sufficiently injurious to impair their vitality, and render them unfit to withstand the cold of the ensuing winter; and, should they escape and put forth the following spring, the fruit will be knotty, blotched, and unfair. In planting an orchard, therefore, in Britain, or in the northern parts of Anglo-America, the site should not be chosen

"In lovely vale, fast by a river side,"

nor, on the contrary, at an elevation too much exposed, but on moderately-sheltered southern slopes, and where choice will further permit, inclining rather to the east than to the west. Planting the rows in a northerly and southerly direction, is thought to be advantageous, in order that the trees may derive the greatest benefit from the sun. But in the middle and western sections of the United States, more especially if the locality be in the region of large bodies of water, a northern exposure has proved to be decidedly more certain in producing fruit, than slopes inclining towards the south.

Propagation from Seeds.—The apple-tree, and all its varieties, may be propagated from seeds, by grafting, or inoculation, and by cuttings and layers. It is a prevailing opinion in England, that the hardiest and best stocks are those which are raised from the seeds of the wild crab, and Mr. Knight recommends that the pips should be taken from the fruit before it is pressed. The mode practiced in the Goldworth nursery, where fruit-tree stocks, perhaps, are raised on a more extensive scale than anywhere else in the world, is to gather the crabs when fully ripe, and to lay them either in a heap to rot, or to pass them between two fluted rollers, and then to press out the juice, which is thus converted into an inferior cider, and afteward to separate the seeds from the pomace by maceration in water, and sifting. It is the opinion of many persons, both in Europe and America, that it is of little consequence whether they are particular in the selection of seeds for sowing, from the fact that the fruit of trees raised from pips of the same apple differ both from the parent tree and from each other. But let it be considered that, when these variations take place, they may not always tend to deteriorate the fruit, but may often result in an exchange of one good quality for another, or may perhaps even exhibit improvements in the qualities. For instance, we may, at least, expect to obtain early fruit from the seeds of that which is early, and from those of late fruit the reverse; and by parity of reason, from sweet or sour, from juicy or dry fruit, we may also expect to obtain seedlings that will, in a considerable degree, correspond to their origin—a result, which it may often be an object of the cultivator to secure. Indeed, if it be true that it is of "little consequence" what kind of pips we employ, there certainly can be no detriment in sowing seeds of good fruit; and this, we conceive will be a sufficient hint for the prudent nurseryman to observe. The pomace, therefore, should be obtained from the apples of healthy and vigorous trees, and should be thickly strewed, and covered with earth, in shallow trenches about eighteen inches apart, so as to admit of the young plants being well hoed and weeded, by hand, in the following summer. Immediately after the fall of the leaf, in the ensuing autumn, the strongest and the most vigorous plants may be drawn, and planted in rows eighteen inches apart, and the same distance from each other, in a soil previously trenched, manured, and cultivated for garden produce. The remaining plants should be similarly managed in the following year. During their second and third year's growth, the ground should be kept perfectly free from weeds by repeated hoeings, and the plants would be greatly benefitted by a light forking between the rows. No knife should be allowed to touch them in this stage, unless it be to shorten an over rampant shoot, which may be making too strong a diversion from the stem, and not even then, if it be more than a foot from the ground, particularly when it is intended to graft the stem; for every twig and every leaf contributes to the growth of the root and stem. In the second or third year, when the stems of the plants have acquired half an inch or more in diameter, at a foot from the ground, the heads may be cut off, and the operation of grafting or inoculation performed; but where the object is to produce new varieties for standard trees, the plants should be trained in the nursery, with tolerable good heads, clearing the stem generally from lateral shoots, according as circumstances may require. The plants should frequently be hoed, and at least once a year, the ground between the rows should be dug half a spade deep, turning the top of each spit clean to the bottom, in order that all weeds on the surface may be buried a proper depth to rot. Care must be observed, from year, to kill all caterpillars which may devour the leaves of the young trees, and carefully to destroy the eggs of the bo-

* See Journ. Roy. Ag. Soc. of England, vol. iv., p. 380.

rer (*Saperda bivattata,*) that are deposited near the ground in the stem of the tree. If the borer perforate the wood, which may be known by a wound or excrescence in the bark, it may easily be reached by a pliant wire and crushed to death. The trees will be greatly benefited by rubbing their trunks with a ley of wood ashes, or strong soap-suds, which will invigorate their growth and tend to ward off all insect attacks.—*American Agriculturist.*

FATTENING POULTRY. — It is asserted in the "Transactions of the Society of Arts,', that there is a great advantage in fattening geese, turkeys, and, in short, fowls of every description, on potatoes mixed with meal. On this diet they are said to fatten in less than one-half the time ordinarily required to bring them to the same condition of "excellence," on any kind of corn, or even on meal itself. The potatoes must be boiled and mashed fine while they are hot, and the meal added, just before the food is to be presented.

SALTING MEAT. — The sooner meat is salted after being killed the better, as it then possesses considerable absorbent power, which it gradually loses by age, and when it once becomes putrid it can never be salted at all. One of the best modes of curing is, to rub the meat well with a mixture of common rock-salt 2 lbs.; saltpetre 2 oz.; and moist sugar 1½ oz., till every crevice is thoroughly penetrated, after which it should be set aside till the next day, when it should be covered with fresh salt in such parts as have been most exposed. It may then be advantageously placed in a proper vessel and subjected to pressure, adding a little more salt as may be necessary, and turning it daily till sufficiently cured.

When the brine, as it forms, is allowed to drain from the meat, the process is called *dry-salting;* but when, on the contrary, it is allowed to remain on it, the mode is called *wet-salted.* On a small scale, the latter is most conveniently performed by rubbing the meat with salt, &c., as above directed; and after it has lain a few hours, putting it into a pickle formed by dissolving 4 lbs. of rock-salt, ½ lb. of sugar, and 2 oz. of saltpetre in 2 gallons of water. This pickling liquor becomes weaker by use, and should therefore be occasionally boiled down a little and skimmed, adding, at the same time, more of the dried ingredients.—*Am. Agri.*

MANAGEMENT OF HONEY-BEES.

That way of managing old stocks, which produces the greatest number of swarms, must in the end be the most profitable.

Now, by *supering*, in Mr. Allen's plan, we get but *one* good swarm at the end of the season, even allowing his plan to operate well. So also we get but one swarm on the principle of *driving* from the old to a new hive, as it is generally done, or I may say *always* done. My mode produces *two* good swarms from the old stock the *first* season; or rather one prime swarm and the old stock itself regenerated by being divested of half its old comb, which enables the bees to prosper for a few years, nearly as well as natural swarms.

I manage thus. As soon as the drones show themselves in *any* one of my hives, I prepare a clean, empty hive with a piece of comb containing the young bees, to form an *artificial* swarm as before described. If the old stock is well filled with bees, or as full as may be expected during the early part of the swarming season, on a pleasant morning I invert the old hive upon a table or bench, and quickly place the new hive, with the piece of comb attached upon it. I then wind a cloth around the junction of the two hives to exclude the light, and with a small rod, I rap the sides of the old hive about ten or fifteen minutes, at which time I suppose that half the bees are driven up into the new hive. This is just what I want. I then remove the new hive to the location of the old one, which at once gathers all the straggling bees. The old hive is now half depopulated, and the combs are quite bare at the ends near the mouth of the hive. I then cut out about half of the comb, and lay it around in some convenient place for the bees to feed on at leisure. This operation must be done with a dexterous hand, and with such implements as I shall hereafter describe. The bees must not be injured by getting that part of the comb left out of their natural position, nor must the work be done so slow as to allow much drainage of honey among them. The combs should be cut *horizontally* about half way to the top of the hive. This allows enough comb for the bees to work upon, and at the same time they will be able to defend themselves against moths, when they could not if all the combs had been allowed to remain.

The old hive should now be placed in a new position near the spot where the operation has been performed. If it should be found on the following day, or at any time within *three* days, that either of the hives has a large majority of the bees, the hives may be *transposed*, that is, place the old one in the new one's place and *vice versa*. Do not disturb them after the third day, because the bees will commence fighting as soon as they become firmly attached to their respective domicils. I can generally manage to get them equally divided. If the *queen* is driven out into the new hive, many more will go there than would if she remained in the old one. In this way we get two good stocks for the next year that will thrive well.

T. B. MINER.

Ravenswood, L. I., 1847. *Amr. Agricult.*

PRESERVATION OF THE GRAPE.

Last winter I sent a communication on this subject to the New York Agricultural Association, which was read before that body by Dr. D. P. Gardner, and seemed to excite not a little interest. In February, I showed some grapes to Dr. G. which were perfectly sound, though ripened under very unfavorable circumstances, and which had been left on the vine until they were *frozen as hard as bullets.* Some of these grapes I kept until May, when the last of them suddenly disappeared down the throat of a friend.

As the grape season is near at hand, a description of my method of preserving this most luscious fruit may not, perhaps, prove uninteresting to many of your readers, and will, no doubt, be appreciated by some of them at least. The process is so simple that but few words are necessary to describe it, and it will be easily comprehended by all. I first take a common *unglazed* flower-pot, and place over the hole in the bottom a small clam-shell (or a piece of broken pot,) with the convex side down to drain off surplus water. I then pour in clean, white sand, to the depth of about an inch; next select a bunch of ripe grapes, perfectly sound, and firmly attached to the peduncle. These I hold in the pot in such a position as that they do not touch its sides, and then fill it up with sand, covering the grapes about an inch and a half deep. This being done, I set the pot aside in a room at a temperature of from 40° to 50° or 60° F., and water it about once a week, or as often as it becomes dry, with a watering-pot having a finely-pierced nose attached to it.

This comprises the whole process, and I think you will admit that it is very simple. I can assure you that it answers the end proposed; at least, it has done so with me for the last six or seven years. If it were not so, I would not think of hazarding my reputation by recommending it in this public way, and over my own name. That all will succeed who attempt to preserve the grape in this manner, I do not expect; but that the great majority will, I firmly, believe, because there is no reason why they should not, if they follow the directions above given. At all events, Mr. Editor, I am anxious that the process should have a fair trial; and there are few lovers of the grape who will begrudge a few bunches for the sake of making the experiment. I have succeeded in preserving the grape by other means, but the above method seems to be the most certain and economical. I will here state that finely pulverized charcoal may be used instead of the sand with great advantage, but it is not so readily procured, and is much more expensive, though, in fact, the cost of either is comparatively insignificant compared with the important purpose to which they are to be applied.

The above process I believe to be new; it certainly is so to me. In the debates on the preservation of the grape, &c. which have taken place from time to time before the New York Farmers' Club and elsewhere, no allusion, to the best of my knowledge, has been made to any method nearly resembling the above; and if any person who took part in those debates was in possession of any such process, he was assuredly under obligations to make it known.

I will just add that the pots may be larger or smaller, and that one or more bunches may be put in each pot, according to circumstances. When the grapes are to be eaten, the sand must be washed off in clean water. I have said nothing in regard to the principles upon which the process is based, as these will be understood by the generality of readers.

PETER B. HEAD.

New York, Sept. 5, '47. *American Cultivator.*

FRUIT MIRACLES.

In the Horticulturist of the present month, we have a notice of a peach tree in the garden of Mr. Willis, at Portland, Maine, that bore a crop last year of perfect peaches, and this season is covered with nectarines. Here is a greater miracle than Boston can boast of. There, the Boston nectarine was raised by Mr. Lewis, from a peach-stone. On Saturday last, Mr. Bush presented to our Horticultural Society a large, perfect, and beautiful plum, which he assured us was raised by him from the stone of an apricot planted in a pot and carefully tended till it bore fruit. Mr. Bush is a well-known and reputable gardener in our vicinity, and his integrity of character for truth will be vouched for, by all who know him. I as firmly believe this transmutation, as I do the Boston and Portland miracles. I will mention two others that came under my own observation, in the truth of which I have equal reliance, and the first far surpasses the Boston nectarine miracle, and the evidence of its truth stronger. Mr. Jones, Consul at Mexico, sent me three apricot stones, which I cracked, and carefully planted in mold from my garden, in a small garden-pot of a triangular form, placed in a hot-bed. In a few days there came up, similarly located, three forest trees, which I transplanted into larger pots, and in a few weeks into the open ground, where they were kept until six or eight feet high; and I was assured they were trees not known in this region. No apricot trees appeared, and could not be expected; for it would be too much to expect, even in the land of witchcraft, to have both forest and fruit trees from the same kind of stones.

The other miracle was at the vineyard of one of my tenants, a Mr. Amen. There was in his vineyard a grape vine that had for many years produced abundant crops of white grapes, and a following season, the same vine bore an abundant crop of black, as well as white grapes. Mr. Amen was a man of truth, but fortunately, the fact did not, as was the case in the Boston nectarine, and my forest-tree miracles, depend on the word of a single individual. All the horticulturists for miles around saw for themselves, and vouched for the fact. Candor, however, compels me to admit, that in this case, I examined the plant, and recollected that it was a Schuylkill muscadel (a black grape,) on which, at my request, Mr. Amen had grafted a white grape, and the black fruit was produced on a shoot from the muscadel stock, which he recollected when I reminded him of it.

Cincinnati, Aug. 12th, 1847. N. LONGWORTH.

American Agriculturist.

SLOBBERS IN HORSES. — We mentioned, a few months ago, our belief that the slobbers in horses was caused by feeding on white clover, and adduced as a proof that we had a horse, in which, when put in a field that had white clover in it, the slobbers would be brought on in half a day, but if put in a field where there was no clover, the slobbers did not appear. In the last number of the Genesee Farmer we find a communication from J. Scott, of Bourbon county, in Kentucky, who attributes the slobbers to the second crop of clover, either white or red. He says horses that feed exclusively on timothy or blue-grass, (the blue-grass is our spear or spire-grass,) never slobber in his section.

He also adds: "I have ascertained the *horse-weed* to be a certain preventive; and if horses can get it, they will be cured in a few hours. The horse weed, as we call it, (not knowing its botanical name) grows very abundantly in grain fields, but is soon exterminated in pastures by all kinds of animals—and in its absence slobbering soon follows. But if a sufficient quantity of this weed can be procured, the disease can be arrested in a few hours."

We should like to know the true name of this "horse-weed." The manner in which this disease acts (for we consider it a disease, though perhaps a worse one would ensue if the slobbers did not) is not known. We do not know whether any dissections were ever made of a horse that was killed or died while the slobbers were upon it. If any of our subscribers or readers have ever made any examinations of the kind, we have quite a curiosity to learn the results.

Maine Farmer.

IRON FENCES. — Iron wire is now used in the construction of fences, and the Westminster (Md.) Caroltonian gives the following description of the manner in which it is adapted to this purpose:—

"The posts are about one half the ordinary size, planted firmly at the distance of ten feet apart, with nine strands of wire drawn tightly through a half-inch auger hole, and tightly plugged at each hole; the wire is of the size of that used for the handle of the Yankee Bucket, and to combine them more firm, wire of a lighter description is wound through the middle, which prevents the hogs from separating them and creeping through. The whole expense of this fence does not exceed twenty-five cents per pannel of ten feet; and for neatness and durability, cannot be surpassed by anything in timber."

Cobbett's Cottage Economy contains the following remarks:

"The great enemy to young turkeys, (for old ones are hardy enough,) is the wet. The first thing is to take care that young turkeys never go out on any account, even in dry weather, till the dew is quite off the ground; and this should be adhered to till they get to the size of an old partridge, and have their backs well covered with feathers, and in wet weather they should be kept under cover all day long."

KEEPING SWEET POTATOES.

I always keep my potatoes in pits dug underneath my top stacks. These pits are about two feet deep, and as wide as the stack will admit — the length, from fork to fork that support the top pole of the stack. Before storing the potatoes away, I have the sides and ends of the pits well planked up, and the bottoms covered about two inches thick with pine beard. I also have a layer of pine beard up the sides and ends about the same thickness as that which covers the bottom. This layer is placed along as the potatoes are packed away; the pits being nearly filled with potatoes. I cover them over lightly with pine beard, and finish the covering with poles and dirt, the dirt being thrown on last, *lightly*, taking care to stop the apurtures between the poles so that no dirt can pass through. In this way I have kept hundreds of bushels of potatoes, without loss of five. Care should be taken before storing away potatoes for winter use, to have them carefully picked over, and all such as are cut, broken or brused thrown out; to avoid bruising potatoes much, they should be handled lightly. With a view to keeping my potatoes in this way, I have my stacks made upon elevated places so that the water may pass off without soaking in the ground much; thereby I keep the pits perfectly dry, which is all important. When I took up my planting last spring, kept as above directed, out of twenty bushels there was not a half bushel injured. G. R.

Southern Planter.

TO KEEP EGGS. — Dr. Holmes — I have seen a variety o different methods recommended for keeping eggs, so they may be fresh and good through the winter; but on trial have always failed to have them come out as "good as new."

About two years ago I thought I would pack some in charcoal. I pounded the charcoal, and packed them in the same manner as recommended in oats, ashes, salt, &c. The result was they kept perfectly good, and when used were as fresh and good to all appearance as new-layed eggs. We have tried the charcoal two years, with the same result.

H. A. PITTS.

Winthrop, August, 1847. *Maine Farmer.*

A SIMPLE CURE FOR DISENTERY.—As the season in which this complaint is most prevalent is near at hand, we insert the following, cut from the Caledonian Mercury, an Edinburgh paper. The plan is simple and easy enough of trial:

Take some butter off the churn immediately after being churned, just as it is, without being salted or washed, clarify it over the fire like honey. Skim off all the milky particles when melted over a clear fire. Let the patient (if an adult) take two table-spoonsful of the clarified remainder twice or thrice within a day. This has never failed to effect a cure, and in many cases it has been almost instantaneous. It has already succeeded in near one hundred, and to many who were supposed to have been at the point of death, it has given instant relief.

APPLICATION OF ETHER IN TAKING BEES.—Several successful experiments are said to have recently been made in France on the etherization of bees, so as to be able to take their honey while they remain in a state of inaction, without the necessity of destroying their lives.

TO SOFTEN AND REMOVE FUTTY.—Take a little nitric o muriatic acid, or a little strong vinegar / nd spread over th putty, and it will soon become soft.

IMPROVED DRAYS.—The Philadelphians have drays with a fixed pulley on the front part, by which one man can load heavy articles with comparative ease.—*Maine Farmer.*

It is announced in the foreign journals, that Schonbein, the inventor of gun cotton, has discovered a method of making paper transparent and impermeable to water. It is to be used in making bottles, window panes, and vases, for it has all the qualities of glass except its brittleness.

PROSPECTUS

OF THE

WESTERN FARMER & GARDENER.

VOLUME IV—FOR 1848.

This valuable periodical, published at Indianapolis, will hereafter be conducted by the subscriber, who trusts by his constant and unwearied attention, to maintain the high reputation of the paper, and render it worthy the great cause to which it is devoted. The urgent want of a better system of Agriculture than at present prevails among the great body of our Western Farmers, must be evident to all, and most painfully so to the farmer himself. With a soil naturally fertile, capable of yielding a most abundant return for the labor of the husbandman, we see the most excessive labor frequently produce but a bare subsistence to the farmer, and his land becoming every year less capable of yielding even this scanty return. Others with smaller farms and incomparably less labor, raise abundant crops, and see their land becoming every year more productive. These are facts within the daily experience of every one, and it is surprising that the striking contrast has not led to more extended investigation on the part of our enterprising farmers. The dawn of a better day has however made its appearance. Farming is taking its place among the progressive arts, and the Agricultural portion of our community is beginning to awaken to the importance of seeking for information from scientific works. Deeply impressed with the importance of the work he has undertaken, and warmly attached by inclination to agricultural pursuits, the subscriber will enter with zeal upon his labors in behalf of a reformation so desirable and important. It cannot be supposed that any one would prefer to continue the slovenly, laborious, and unproductive system of farming which so much prevails in the West, if a better were within his reach. The object of the "Farmer and Gardener" is to place within the reach of and render available to every farmer, the results of all the experience and investigations of others on the subject of agriculture. We unhesitatingly affirm that no farmer should be without it—that in no other way can the amount of money paid for the subscription, be laid out to the same advantage, and with the same certainty of a profitable return. But the information contained in the "Farmer and Gardener" is not confined exclusively to the cultivation of the soil: whatever interests the farmer, the management of stock, the best and cheapest mode of erecting suitable buildings, the dairy, the poultry yard, and indeed every department connected with a good farm, will receive its due share of consideration.

We cannot suppose that any farmer will choose to remain ignorant concerning his true interests when such adequate information is to be had at such trifling cost. Valuable information will also be given concerning the state of the markets, with hints as to the proper time to dispose of surplus produce. The garden, so indispensably necessary to every dwelling, will receive its share of attention, both in its useful and in its ornamental branches.

Intimately connected with the foregoing objects, is the subject of general education, which will ever find a warm and devoted advocate in the editor of the "Farmer and Gardener." We are decidedly of opinion that as the general standard of education is elevated, the farmer will take his true position in society; and that general information is as valuable to the farmer as to any other class. The necessary reforms in our system of common school education will be constantly urged; and such changes as our own experience or that of others may suggest, will be laid before the reader.

The Indianapolis prices current, with the latest intelligence of Cincinnati, New York and other markets will be given.

C. DAVISSON.

The first number of Vol. IV, will be issued on the first day of February, 1848, and thereafter on the first of every month. *The Farmer and Gardener will appear in large octavo, forming, with the index and title page, 200 pages a year, for* FIFTY CENTS, *in advance.* And the present subscribers are hereby reminded, that according to established usage, no papers will be sent them after the close of the current volume, until their subscriptions are renewed. It is desired that as many as possible will send in their new subscriptions before the 1st of February.

Postmasters and Agents, acting for the above, will please retain 20 per cent. on their collections from new subscribers for their trouble. Any person disposed to act as agent in a town or neighborhood, can do so upon the terms stated.—Travelling agents will have letters and certificates from the publisher or editor.

☞ All letters on business, or communications for the Farmer and Gardener, to be directed to C. DAVISSON, at Bloomington, Indiana, until the first of January next, and after that time at Indianapolis, Ind.—or to J. D. DEFREES, Indianapolis, Ind.

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